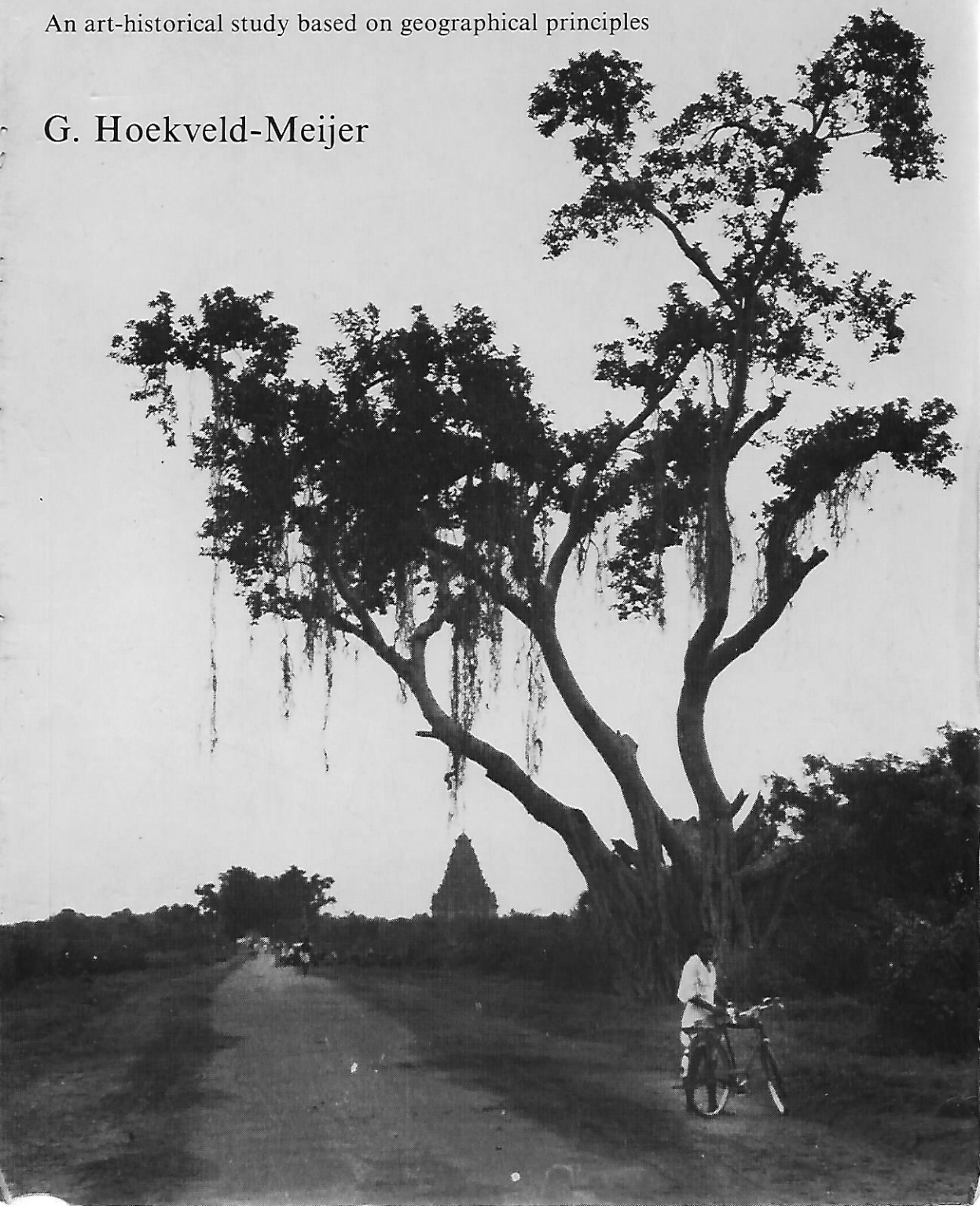


# Koyils in the Colamandalam

## Typology and Development of Early Coḷa Temples

An art-historical study based on geographical principles

G. Hoekveld-Meijer





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VRIJE UNIVERSITEIT TE AMSTERDAM

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**Gerda Hoekveld-Meijer**  
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krips repro meppel

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*In dankbare herinnering aan  
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### Frontispiece:

Gaṅgaikoṇḍacoḷapuram	Gaṅgaikoṇḍacoḷeśvara	general view
Pl. 1 Māmallapuram	Arjuna Ratha	South-east view
Pl. 2 Kāñcī	Piravātaneśvara	North wall
Pl. 3 Kāñcī	Kailāsanātha	South wall
Pl. 4 Māmallapuram	Shore temple	base
Pl. 5 Paṭṭadkal	Virūpākṣa	pañjara
Pl. 6 Paṭṭadkal	idem	East wall
Pl. 7 Paṭṭadkal	Sangameśvara	South wall
Pl. 8 Bādāmī	Mālegiṭṭi Śivālaya	East view
Pl. 9 Bādāmī	idem	niche
Pl. 10 Biccavolu	Nakkalaguḍi	West wall
Pl. 11 Biccavolu	Village temple	East wall
Pl. 12 Biccavolu	Rājarājeśvara	South-east view
Pl. 13 Biccavolu	idem	niche
Pl. 14 Biccavolu	Candraśekharasvāmin	niche
Pl. 15 Biccavolu	idem	pañjara
Pl. 16 Biccavolu	Goliṅgeśvara	South wall
Pl. 17 Viśālūr	Mārgasahāyeśvara	West wall
Pl. 18 Panangudi	Agastyeśvara	prastara, grīvā, śikhara
Pl. 19 Gaṅgaikoṇḍacoḷapuram	Amman shrine	a) South-west view b) South wall
Pl. 20 Kūḷambandal	Gaṅgaikoṇḍacoḷeśvara	a) South wall b) North wall
Pl. 21 Tiruvāḷṭśvaram	Vāḷṭśvara	a) Superstructure b) makaratorapa ardham. niche
Pl. 22 Gaṅgaikoṇḍacoḷapuram	Amman shrine	
Pl. 23 Tiruppalanam	Āpatsahāyeśvara	West wall
Pl. 24 Tillaisthānam	Ghṛta -sthāneśvara	West wall
Pl. 25 Tiruvēdikkudi	Vedapurīśvara	North wall
Pl. 26 Tiruchchātturai	Ōdavaneśvara	West wall
Pl. 27 Tiruvaīyāṟū	Pañcanāḍīśvara	a) kūḍu b) podigai
Pl. 28 Tirukkandiyūr	Vṛaṭṭaneśvara	North wall
Pl. 29 Melatiruppūndurutti	Puṣpavaneśvara	a) North wall b) niche
Pl. 30 Kumbakonam	Nāgeśvara	West wall
Pl. 31 Śrīnivāsanallūr	Koranganātha	a) South wall b) cut-out niche c) West wall d) (brick) rafters
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Pl. 33	Kilaiyūr	a) Agastyeśvara	North view
Pl. 34	Tiruchchennampūṇḍi	b) Čoleśvara	North view
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Pl. 36	Kāñcī	Kailāsanātha	a) South-east view
Pl. 37	Māmallapuram	Mukunda Nayanar	b) makaratoraṇa
Pl. 38	Puḷḷamaṅgai	BrahmapurTśvara	prakāra-walls
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			a) South-west view
			b) West wall
			c) pañjara adhiṣṭhāna
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Pl. 39	Tiruveṇṇambūr	PipTleśvara	pañjara
Pl. 40	Tiruppurambyam	SāksTśvara	North-west view
Pl. 41	Tiruvādūtūrai	Gomukteśvara	pañjara
Pl. 42	Karandai	VasTṭeśvara	a) North wall
			b) North wall
Pl. 43	Tirumayānam	Jñanaparamesvara	a) West wall
			b) North-west view
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Pl. 44	Kōyildēvarāyanpēṭṭai	MatsyapūrTśvara	West wall
Pl. 45	Tudaiyūr	Viṣamaṅgaḷeśvara	a) West wall
			b) pañjara
Pl. 46	Manampādi	Śiva koyil	a) West wall
			b) pañjara
Pl. 47	Tiruvaiyārū	Ten Kailāsa	pañjara
Pl. 48	KTḷappaḷuvūr	Vatamūleśvara	South-west view
Pl. 49	Goburapatti	Amaleśvara	West wall
Pl. 50	Tirumaṅgalam	Sāmavedeśvara	North wall+pañjara
Pl. 51	Tiṇḍivanam	Tirutinḍiśvara	North wall
Pl. 52	Dadapuram	Viṣṇu Koyil	a) North-west view
			b) pañjara
Pl. 53	Tirukkaḷavūr	Madhuvaneśvara	kapota
Pl. 54	Tirukkaliṭṭattai	VedapurTśvara	South view
Pl. 55	Gōvīndaputtūr	Gaṅgājaṭādhara	a) North wall
			b) adhiṣṭhāna
Pl. 56	Tiruppaltuṭai	ĀdimoulTśvara	North wall
Pl. 57	Aḷḷūr	Pañcanādiśvara	a) South-east view
			b) North wall
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Pl. 62	a) Tiruvirāmeśvaram	Rāmanātheśvara	North wall
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	b) Tiruvaiyārū	Uttara Kailāsa	pañjara
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Pl. 65	Pēraṅgiyūr	Śiva koyil	a) North-west view b) connection vimāna and ardhamandapa
Pl. 66	Tiruvāṁattūr	Abhirāmeśvara	North wall
Pl. 67	Tiruvakkaraī	Candramoulīśvara	North wall
Pl. 68	Tiruvāṇḍārkōyil	Pañcanāḍīśvara	a) South wall b) cut-out niche
Pl. 69	Tiṇḍivanam	Tirutiṇḍīśvara	a) adhiṣṭhāna+vari b) South-east view
Pl. 70	Tiruttāni	Vīratṭaneśvara	South wall
Pl. 71	Kāñcī	Sokkeśvara	a) South-west view b) prastara
Pl. 72a)	Uttaramallūr	Sundara Varadarāja Perumal	upāna
	b) Uttaramallūr	Ḷedareśvara	idem
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Pl. 73	Taṅjāvūr	Rājarājeśvara	South wall
Pl. 74	Tirumullaivāyil	Śrī Masilamanīśvara	kumbhapañjara, podigai
Pl. 75a)	Brahmadēśam (S.A.)	Pātāleśvara	South wall
	b) idem	idem	false antarāla
	c) Vṛddhāchalam	Vṛddhagiriśvara	kapota
Pl. 76	Tribhuvana	Varadarāja Perumal	a) General view b) adhiṣṭhāna
Pl. 77	Pennadam	Pralayakāleśvara	grill-window
Pl. 78	Tiruveṅkāḍū	Śvetārāṇyeśvara	a) vimāna wall b) adhiṣṭhāna
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Pl. 80	Tirukkoḷḷikkāḍu	Agnīśvara	a) West wall b) West wall
Pl. 81	Kōvilāḍi	Divyajñāneśvara	West wall
Pl. 82	Madagadipattu	Tirukaṇḍīśvara	South-west view
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Pl. 84	Éśālem	Rāmanātheśvara	a) śikhara b) South wall
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Pl. 86	Tirukkuhukavūr	Velladai Tśvara	North wall
Pl. 87	Nārttāmalaī	Vijayālaya Coḷeśvara	General west view
Pl. 88	Kannanūr	Subrahmanyeśvara	prastara, grīvā-niche
Pl. 89	Tiruppūr (Tri.)	Śiva koyil	prastara, śikhara
Pl. 90	Kiranūr (Tri.)	Uttamadanīśvara	a) prastara b) vimāna wall
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Pl. 92a)	Kumbakonam	Nāgeśvara	prastara
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Pl. 94	Chittūr	Agnīśvara	a) South-east view b) connection vimāna and ardhamandapa
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Pl. 98	Pōinee reservoir (Vempakkam)	Śiva koyil	South wall

Pl. 99 Kāvaṇṭandālam

Coḷeśvara

a) South wall

Pl. 100 Kāñcī

Sokkeśvara

b) kāl

Pl. 101 Pudūr (N.A.)

Siva Koyil

Gaṇeśa niche

Pl. 102 Dārāśūram

Airāvateśvara

West wall

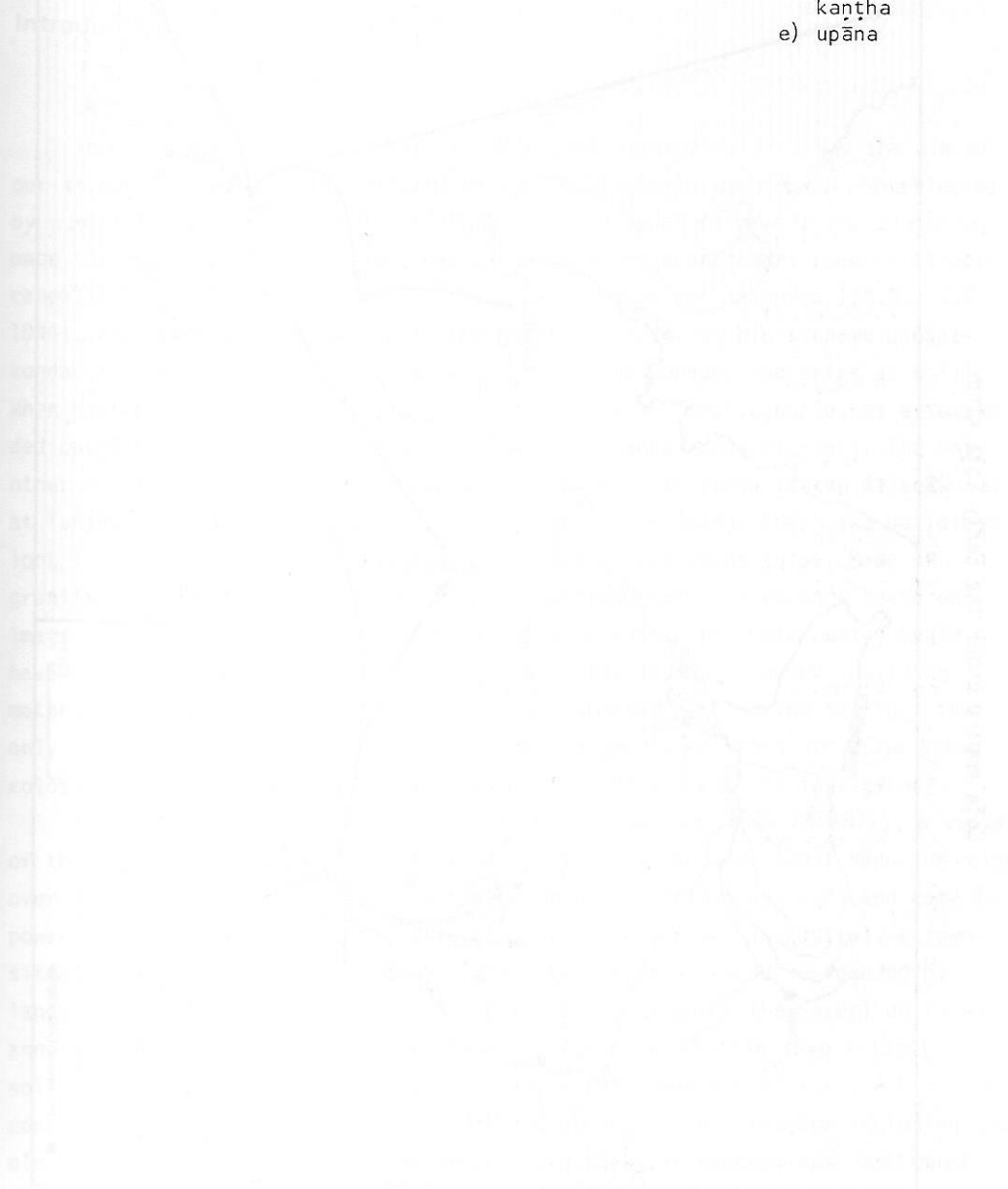
a) devakoṣṭha

b) first tāla

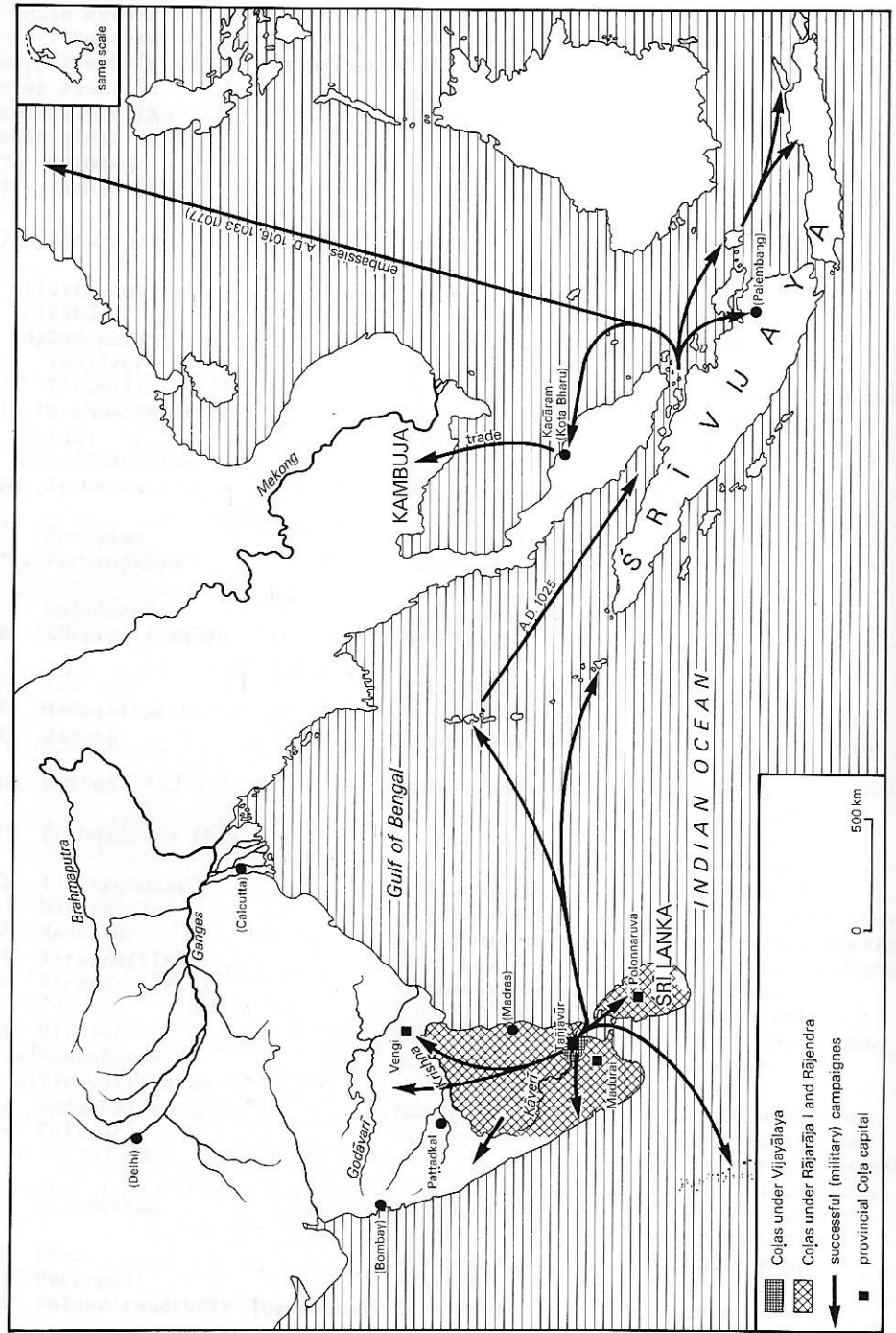
c) adhiṣṭhāna


d) adhiṣṭhāna +  
kaṇṭha

e) upāna



Coja empire under the Early Coja kings.





## Introduction

The illustration on the cover of this book represents in a way the aim of our study. The road to our destination—a small triangle against a skyline blocked by cumbersome obstacles - was difficult to go. It ended in Gaṅgaikoṇḍaḷapuram, once the capital of a Coḷa king, now a hamlet along a secondary road in Tiruchirappalli District, Tamil Nāḍu. This king, who's name was Rājendra I (A.D. 1012-1044), had conquered the Gaṅges in the north of India, as his surname Gaṅgai-koṇḍaḷa indicates. He made a successful effort to conquer the skies as well. When nearing that small triangle it appears to be an immense building: a temple dedicated to Śiva and named after the king, the Gaṅgaikoṇḍaḷeśvara. The only other early example of such a large structure in South India is the Rājarājeśvara at Tañjāvūr, built by his father Rājarāja I (A.D. 985-1014). These two buildings look like mountains and that is exactly what they were meant to be. Made of granite from their base up to the pinnacle crowning their spires, they tease our imagination. What type of architectural development in the Coḷa empire could have caused such an outcome in an area where clay is the common building material? How long did it take to reach that summit, considering the fact that only small granite cubicles are supposed to be the forerunners of these stone colossi? In other words, when did it all start and who was the instigator?

The first king of this Coḷa line was Vijayālaya (ca. A.D. 850-871), a vassal of the powerful Pallavas in the northern part of the present Tamil Nāḍu. He ruled over a small laterite area west of the great Kāverī delta (maps 1-2) and came to power only after conquering the Pallavas. Tañjāvūr became his capital, a town situated rather strategically on a relatively safe highground surrounded by lands yearly flooded by the monsoon-fed Kāverī. From here, the Kāverī delta was annexed bit by bit. Since river-clays are far more fertile than laterite soils, Vijayālaya's economic position became strong. His son Āditya I (A.D. 871-907) consolidated this position and extended the borders of his kingdom including the old region of the Pallavas in the north. This story of success was continued



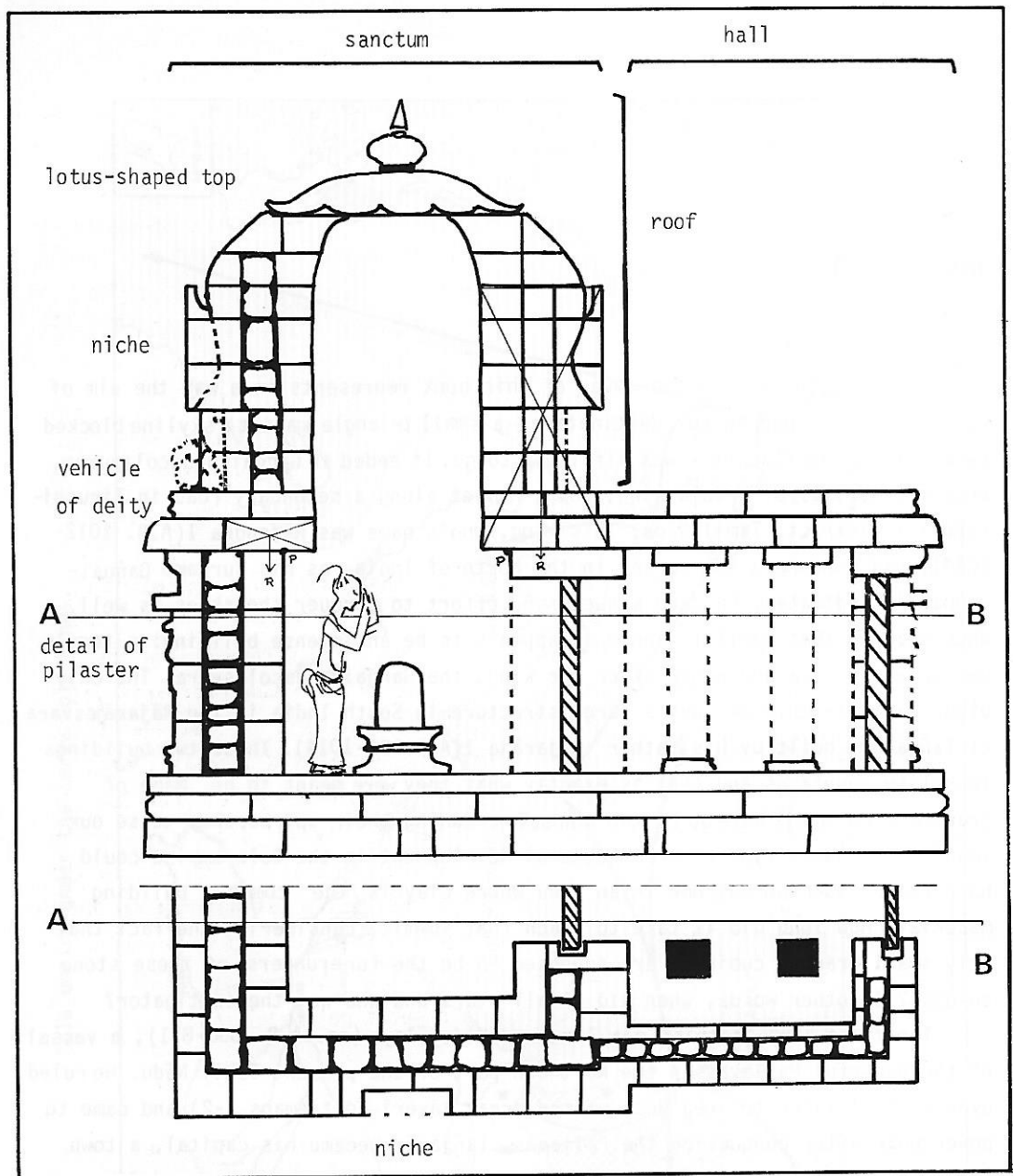


Fig.a. Construction of an Early Coḷa shrine with one storey and a cupola. In the roof niches jut out distinctly at the four cardinal points of the cupola. Together with the solid blocks carved in the shape of the deity's vehicle at the four corners of the cornice they were probably designed as contreforts. As a result, the centre of gravity(R) of the cupola's mass remains within the pivotal point(P). (schematic reconstruction on the basis of observations of some ruins such as those at Tiruchchennampūṇḍi and Pudūr(N.A.) as well as the Śokkeśvara at Kāñcī).

by Vijayālaya's grandson Parāntaka I (A.D. 907-955) who is known to have "taken the head of the powerful Pāṇḍya", which can only mean that he extended his rule in a southward direction, ransacking Madurai, the capital of the Pāṇḍyas, as his surname Madurantakam indicates. However, he was unable to keep the northern part of his empire under control. Between A.D. 945-970 the Coḷa power was reduced once again to the area of the delta and its immediate surroundings. Under Uttama Coḷa (A.D. 969-985) nearly all lost territory was recovered. He laid the foundation of the future empire for the next two generations: his nephew Rājarāja I and his grand-nephew Rājendra I. The whole area remained under Coḷa rule till A.D. 1250.

The power of these so-called imperial Coḷas was based on the one hand on the Kāverī and on the other hand on levying heavy taxes from the people of the conquered regions. The Kāverī is a mighty river the waters of which were gradually brought under control by means of a system of anicuts. An anicut is a type of weir regulating the velocity of flood-waters. Simultaneously, the regulated waters are subdivided through a network of channels. The westernmost anicut is called the Upper Anicut and is situated right in the middle of the area ruled by Vijayālaya before he became king. It lies west of the modern town of Tiruchirappalli. Here the Kāverī is divided into two: a northern stream called the Coleroon and a southern branch still called the Kāverī. Further eastwards we find the Grand Anicut. Here the Kāverī is again divided into two. Between this anicut and that at Tirukkāṭṭuppaḷḷi lies a village called Śendalai, once the capital of the Muttairaiyars who held the delta before the Coḷas took over. In Tirukkāṭṭuppaḷḷi the southern branch of the Kāverī is divided once more, while in the centre of the delta, near Kumbakonam, the upper Kāverī is divided by the Lower Anicut. Kumbakonam itself is an old religious centre dating from far before the Coḷas. This network of channels and anicuts was created to make an efficient use of the irregular, monsoon-fed waters of the Kāverī. As a result of this the Coḷa rulers became prosperous and their kingdom a political power.

About 150 out of roughly 200 Coḷa monuments are still in existence. They were built in the course of two centuries and are usually dedicated to Śiva. Together with stone and metal images they are the only remaining artefacts of that period. Before defining our problem we should like to make our reader familiar with some aspects of the Early Coḷa shrine. First of all, it must be pointed out that the Early Coḷa temples are spread over a vast area and are usually situated in a village or town. Comparing this type of distribution with

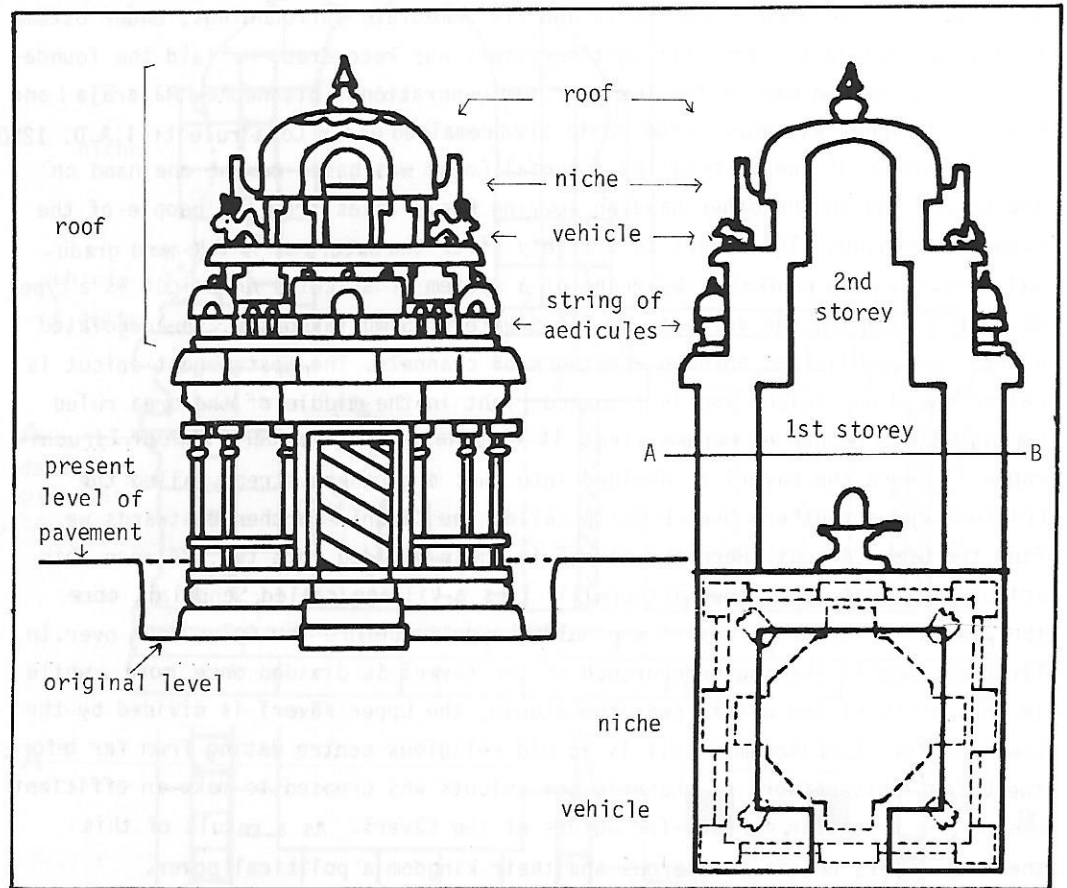


Fig.b. An Early Cola shrine with two storeys and a cupola.  
A string of miniature shrines running around the second storey as well as the four vehicles and projecting niches on the second platform served as contreforts.

those of earlier products of South Indian architecture we were surprised to find that Cāḷukya as well as Pallava monuments are concentrated in capitals such as Aihole, Bādāmī, Paṭṭadakka and Kāñcī or near a harbor such as Māmallapuram (maps 1 and 2), whereas the Pāṇḍyas carved out cave temples at places far from the present villages. These facts are all the more striking as the oldest Early Coḷa shrines are not located at Tañjāvūr but in the area to the east and to the west of this Coḷa capital (map 3).

Another remarkable difference between Early Coḷa temples and those designed by the Cāḷukyas, Pallavas and Pāṇḍyas concerns their dedication. Whereas the Coḷas created monuments in honour of Śiva, the other South Indian dynasties dedicated their shrines to Viṣṇu, the Jina and only occasionally to Śiva. So, we are inclined to believe that the worship of Śiva in the Deep South became only a nation-wide involvement when the Coḷas came to power. This could perhaps be explained partly by the circumstance that the Tamils belong to the Dravidian race which in those remote days had not yet been converted to North Indian or Aryan forms of religion. Traces of animistic practices can still be found in present day Tamil Nāḍu and many aspects of Śiva are obvious substitutes of pre-Aryan deities. Possibly Śaiva rites were for the same reason adopted more easily than those connected with the worship of Viṣṇu or the Jina.

Hindu worship does not require immense halls to accommodate the devotees. Everybody can go and pray or offer food to the deity, as long as there is a priest to receive him and his offerings. Consequently, the profane part of a temple, i.e. the hall in front of the sanctum (Fig. a), was and in many cases still is, a small, dark and narrow corridor. The sanctum is normally only slightly larger than this hall. It contains a liṅga, the phallic representation of Śiva. The size of the liṅga determines the size of its shrine, for a tall liṅga requires a tall, a tiny phallic symbol merely a small shrine. The interior provides just enough room for a priest to perform the rites which are centred on the liṅga.

Early Coḷa temples have a square ground-plan and are relatively small for they never exceed 6 sq. metres, while a ground-plan of 4 sq. metres seems to be the minimum. The width of the hall never surpasses that of the sanctum. The interior walls are not decorated, the outside on the other hand is embellished with pilasters, corbels, crescent-shaped ornaments above niches and small panels under the pilasters. Usually a wall has four to six pilasters and one niche. The hall is covered with granite "beams" supported by two or four pillars on the inside, while on the outside it seems to consist of several parts as illustrated

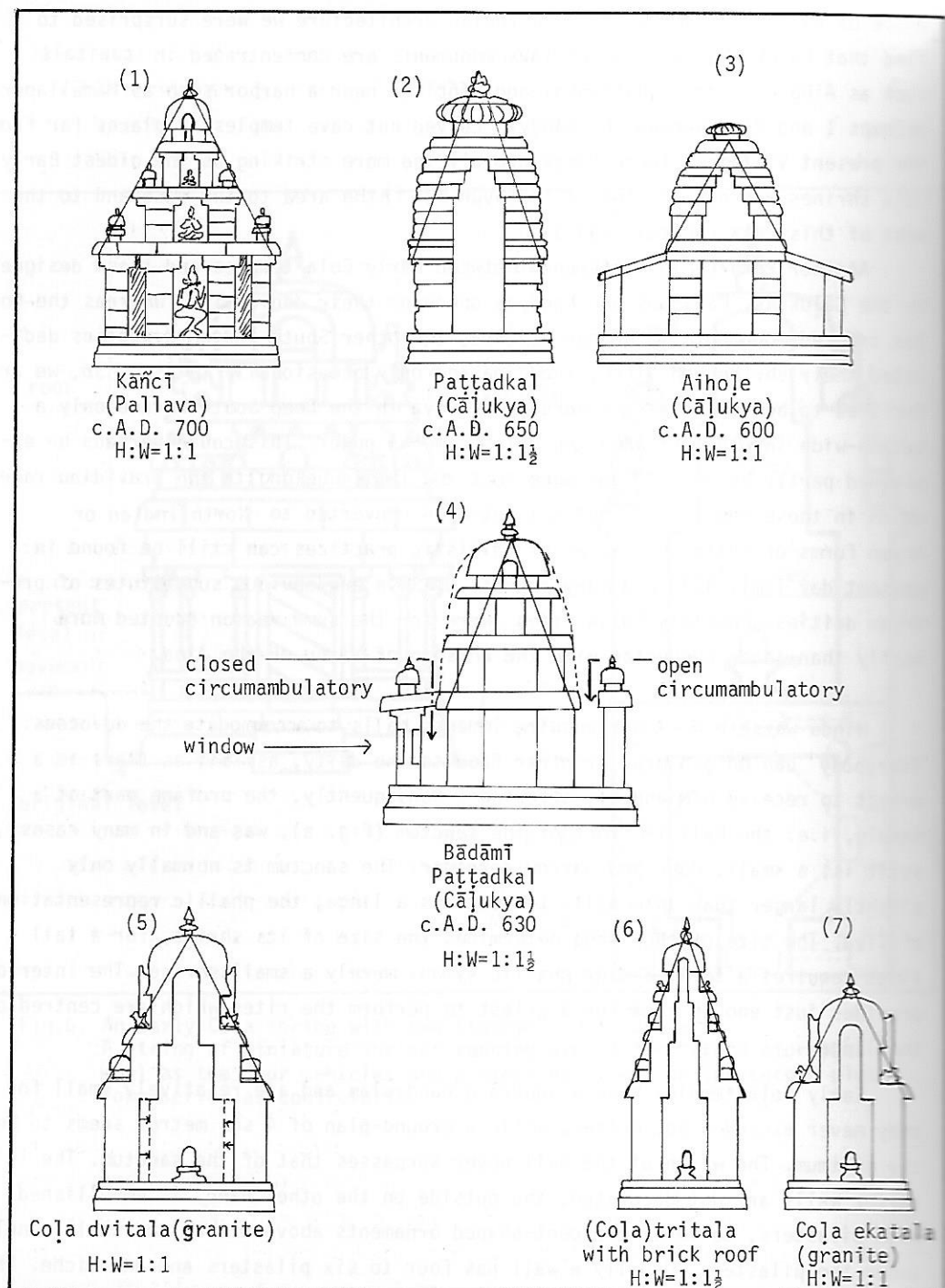


Fig. c. Cross-sections of typical Pallava, Cālukya and Coṣa buildings. H=height of superstructure; W=width of building.

in Figs. a and b.

The construction of an Early Coḷa shrine is rather simple. It is a small pile of granite blocks each measuring roughly 50 x 50 x 35 centimetres. The entire building rests on a platform of granite slabs. The walls consist of three parts (Fig.a). The stones of the outer and inner surface are neatly worked and fit perfectly, while the space in between is filled with rough blocks. The stones on the outside of the building are sculptured in such a way that they represent a section of the wall together with, for instance, a part of a pilaster or niche. Figs. a-c show that the construction of the "roof" is based on the principle of corbelling. This was a well-known method applied throughout India. In Cālukya architecture (Fig.c, 2-4) the inner curve — which is the result of this corbelling — is also exposed on the outside. However, in South Indian architecture of Pallava and Coḷa origin reminiscences of this inner curve are blotted out by the dominating lines of a pyramidal superstructure, at least in the case of buildings with more than one storey (Fig. c, 1 and 5-6).

It is obvious that careful provisions should be made to prevent the centre of gravity (R in Fig. a) of this enormous mass of granite resting on the walls from falling beyond the pivotal point P, as the roof is otherwise bound to collapse. Counterweights such as the solid blocks shaped into the "vehicle" of the enshrined deity — usually Śiva and consequently Śiva's bull Nandi — as well as the "necklace" of miniature shrines on the upper and lower platforms respectively, were probably invented to ensure stability. However, the best solution to the problem of instability — inherent to the principle of corbelling — is a steep pyramid as is best illustrated by the huge tower at Tañjāvūr, which is one and a half times as high (45 metres) as the width of its base. Other steep buildings showing more or less the same proportions are the tall temple gateways or gopuras. They are invariably huge constructions of brick at the four cardinal points of the walls enclosing a temple compound, dominating the South Indian landscape.

Instability must have been a major architectural problem in a period preceded by a tradition of rock-cut temples and monasteries. The following figures will demonstrate that Coḷa architecture was based on experimental forms seeking a solution of this obstacle. As far as we know no attention has as yet been paid to the form of South or Central Indian superstructures with regard to problems of instability. By the time the architectural manuals were compiled the proportionate measurements resulting in a particular shape and profile of a superstructure had meanwhile been forgotten or sublimated into symbolic mantras

The superstructure can be reduced to two basic types, viz. one in which



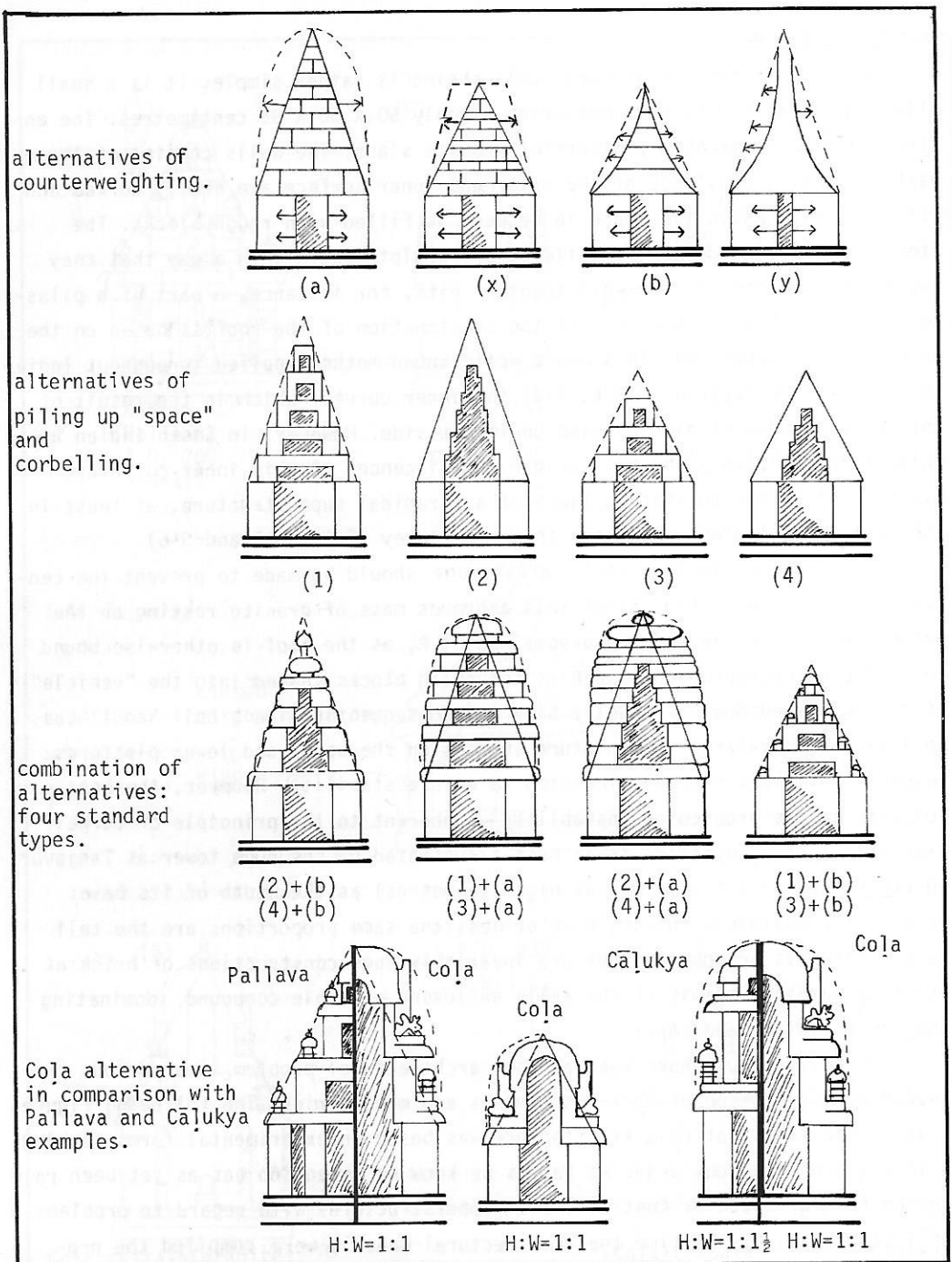


Fig. d. Roots of Coḷa architecture. Recombination of alternatives such as corbelling (Cālukya), piling up "space" (Cālukya and Pallava), the creation of counterweights by way of curvilinear "shoulders" (Cālukya) and aedicules (Cālukya and Pallava). H=height of superstructure; W=width of building; (x)+(2) is Coḷa gateway (frontview); (y) idem, side view but in that case without doorway.

the height equals the width of the building and a second in which the height exceeds the width of its base. In the latter case  $H = 1\frac{1}{2}W$  seems to be the most common proportion. When the mass of the superstructure remains within the lines of the triangle formed by the roof as illustrated in Fig. d, first row, the walls of the first storey must be very thick or double. Since the roof is meant to cover a cella the architects tried to place as much weight as possible on the sides of the roof in order to prevent it from collapsing. The solution in which the masses of granite surpass the lines of the triangle as shown in Fig. d, (a) and (x), ensures more stability. The curvilinear contour which is one of the results of this experiment is characteristic of Cālukyan architecture (a); the trapezium (x) is typical of South Indian gateways dating from the 11th century at the earliest. Unfortunately, thick or double walls reduce the inner space of the sanctuary to an unacceptable minimum. The weight of the roof can be diminished by piling storey upon storey (Fig. d, (1) and (3) or by corbelling (2) and (4). A combination of these two principles related to instability problems produces four standard types of temples (Fig. d, third row).

Comparing these four types with examples of Pallava, Early Cālukya and Coḷa architecture (Fig. c), it is obvious that the Coḷa order is a mixture of two architectural principles. In the first place, it combines the "Pallava" triangle with the "Cālukya" curvilinear contour which is the result of applying contreforts outside the lines of the, moreover, much steeper triangle. However, the shapes of the "Coḷa" counterweights are derived from Pallava prototypes. A third remarkable contamination of forms is the shape of the Coḷa cupola (cf. Fig. d, fourth row). In comparison with its Pallava prototype it is an impressive dome. In our opinion this over-sized cupola is the result of experiments carried out to find a permanent solution of the stability of the roof, for most of the cupola's mass acts as a contrefort, including the otherwise unduly large niches at the four cardinal points. Finally, it should be pointed out that the number of storeys depends on the structural alternatives as illustrated in Fig. d, fourth row. For, a Pallava monument counts three storeys but a Coḷa building only two — height and width being equal. Comparing a Coḷa temple with one storey with a Cālukya building it is obvious that the number of storeys of the latter easily exceeds that of a Coḷa building with the same width (cf. Fig. d, third and fourth row). This can be attributed to the necessarily large size of the Coḷa cupola. When a shrine is covered by a brick superstructure the number of storeys is usually more than in the case of a roof consisting of granite blocks. The relatively light bricks allow a rather steep type of corbelling which, moreover, remains practically within the lines of the triangle (Fig. c, 6).



This results in a superstructure of three talas, whereas the required counterweight of the roof (Fig. c,7) forced its architect to design a single storeyed building with an enormous cupola.

Apart from these assumed developments in the structural aspects of Early Coḷa buildings, their architects should also be praised for other outstanding achievements. In the first place it remains a remarkable phenomenon that in a delta granite was applied instead of clay. The latter is available immediately and in abundance and was, moreover, a building material sanctioned by tradition since Vedic times. In the second place granite is by no means a common building material in Indian architecture. Even the legacy of extant Pallava monuments is only partly built of granite as most of these shrines are constructions of sandstone. On the other hand, the Pāṇḍyas living to the south of the Kāverī delta (map 1), carved out series of cave temples during the two centuries preceding the rise of the Coḷas in the so-called plateau, i.e. granite country. So, it is obvious that the technique of working hard stone was well developed throughout the southern part of the peninsula. Granite outcrops of a suitable size were successfully worked with simple tools such as the pointed chisel and iron mallet. First deep grooves were cut out with a similar chisel along incised lines indicating the required shape of a block. Then the protuberance was struck from the side and split off. This is rather easy due to the structure of granite.

Throughout the Coḷa period the methods of construction and the technique of working stone remained the same. Nevertheless, Coḷa architecture is usually divided into three phases, Early, Middle and Late, indicating a considerable change in stylistic aspects rather than in construction and technique. In our study we intend to trace the development of these changes from the earliest granite Śaiva koyils to the two large monuments towering more than fifty metres over the area once ruled by the Coḷas, viz. the Coḷamaṇḍalam.



# Chapter one

## The Early Coḷa style: a triple problem of demarcation

### 1. Definition of the problem

During our stay in Tamil Nāḍu between 1966-71 we became fascinated by the earliest representatives of Early Coḷa architecture. At that time there existed only one comprehensive study of this subject, viz. the first publication of Balasubrahmanyam (1966). It was based on a thorough analysis of inscriptions concerning the temples supposed to have been raised during the reigns of the first two Coḷa kings. When visiting these shrines we noticed that Balasubrahmanyam had not taken into consideration the widely varying features of these monuments. So, we found it more and more hard to believe that the temples were actually built in the chronological sequence proposed by him. Moreover, his study was not based on fundamental questions such as :

- How could the granite architecture of the Early Coḷas develop in a delta?
- What are the most specific characteristics of the initial stage of its development in relation to the preceding architectural styles in and around the delta?
- How did these features develop?
- What are the criteria which distinguish Early Coḷa monuments from other buildings raised in the same vast and undefined area or during the same period?

In other words, we were confronted with a triple problem of demarcation, viz.:

1. the demarcation of a combination of style features which distinguish an Early Coḷa monument from other temples;

2. the demarcation of the period in which these combinations were designed, divided into phases corresponding with distinctive changes in their development;
3. the demarcation of the area in which these buildings were raised.

A problem of quite a different nature was how to proceed. It will be obvious from the above that we could not rely on an impressive body of published material during any stage of our research. Subsequent publications on this subject did not improve this situation, for their respective authors merely as-studied a specific area as well as a specific period in which a specific development of Early Coḷa architecture took place without putting their presumptions to the test or relating them to a theory with regard to the development of a style. This being the situation we had to start our investigation in a field which had not yet been explored theoretically. So, we had to begin by formulating a set of hypotheses and then check whether or not they could be substantiated.

## **2. Formulation of hypotheses**

### **2.1. Hypotheses to be rejected.**

We shall first summarize the hypotheses which had to be rejected and explain why they were unsuitable for our research, though each of them could in principle provide an interesting subject of study.

In the first place we could assume a relation between the size, shape and symbolic function of measurements in Coḷa architecture. Such a relation does exist in temple architecture elsewhere in India as Kramrisch(1946) demonstrated in her excellent analysis of the old manuscripts dealing with sacred architecture. At the same time, it should be remembered that the surviving manuals of South Indian architecture seem to date at the earliest from the 11th century. Moreover, the original features of many an Early Coḷa temple are spoiled or invisible, for plinths tend to disappear into the pavement and granite roofs are liable to collapse and are then usually replaced by brick constructions which are higher than the original superstructure. Consequently, it is hard, if not impossible, to trace the proportionate measurements of Coḷa architecture. It is, therefore, not surprising that studies on the relation between size, shape and the proportionate measurements on the one hand and the specific deity enshrined on the other hand, are lacking. To the above mentioned difficulties obstructing a study of Coḷa art, we may add the circumstance that in many instances the original dedication of a temple to a particular deity or manifestation of Śiva, is either uncertain or has been blotted out, due to frequent alterations in the name of the shrine.

Another set of hypotheses could refer to the appearance of a temple in relation to its physical and cultural environment and — more important — the assumed or known developments in any of these environmental conditions in relation to changes in appearance of shrines built under these new conditions. However, it is hardly possible to establish a chronological sequence of the assumed environmental changes. It is true that Sastri(1955) contributed immensely to our knowledge with regard to the history of the Coḷas which embraces four centuries. However, he did not, or perhaps could not, differentiate sufficiently the chronologically unstructured information which the epigraphists of the Archaeological Survey of India had been — and still are — producing since the end of last century. Sastri's systematic survey provides us with an almost panoramic view of daily life during the Coḷa period but his focus is on centuries, while for our purpose we would have to zoom in on decades, which is impossible.

A third aspect which has so far never been analyzed in a satisfactory way, is the assumed relation between variation in shape and/or size of a temple and the development of South Indian iconography during the Early Coḷa period. Gopinatha Rao(1968<sup>2</sup>) provided a fairly complete inventory of, among others things, South Indian Hindu iconography but he did not reveal basic regional differences or preferences, or historical developments related to these regional variations. However, it should be remembered that Śaiva and Vaiṣṇava iconographies were already fully developed in Central and North India before the Coḷas came to power. Moreover, a Hindu revival seems to have taken place in the predominantly Buddhist and Jain, Tamil country. As a result of this the iconographical representation of Śiva and/or Viṣṇu might already have been standardized at the beginning of our period. Unfortunately, it is hard to extract from the scanty and often legendary information to which extent the non-brahmin population was involved in this revival. Since the earliest dated Coḷa monuments do not demonstrate the manifest wish to depict more than one of Śiva's aspects, we can merely wonder whether Āditya's conquest of the delta and its villages might have been simultaneously a Śaiva crusade against other persuasions including animistic practices.

Finally, it could be said that the authors mentioned below hardly ever explicitly formulated an art-historical concept with regard to the development of Early Coḷa architecture. In general it is understood — but not demonstrated — that Coḷa shrines developed gradually from tiny buildings into larger ones and that the number of their niches increased (Balasubrahmanyam 1966). Barrett(1974) assumed a development from simple shapes to more complex buildings and associated building activities with political successes and upheavals without relat-

ing these occurrences to variations in type. Finally, Soundara Rajan(1978) theorizes about processes of amalgamation and crystallization but he does not explain which parts of the building are involved in these developments and, consequently, he cannot put his assumptions to test. In an earlier publication (1975) he even tried to deny the authorship of the Coḷas in a large number of cases without providing a sound theoretical basis or argumentation.

To an outsider it may look strange that such prominent scholars did not carry out some fundamental research on art-historical questions. However, Balasubrahmanyam — and to a lesser extent Barrett too — was convinced that a temple can be dated on the basis of its oldest inscription. In other words, both authors assumed an indisputable relation between the age of a shrine and the earliest record on its walls. The shape and other stylistic characteristics of a specific monument are thus attributed to a particular year or Coḷa king. Arranging the buildings according to this chronology, their features were then taken to represent a stylistic development. This method might have provided excellent results but for the fact that the epigraphical publications reveal a striking failure to extract from these inscription-covered buildings the secret of their age. They are indeed like old ladies, their lovely faces covered with the soft lines of age accompanied by a mild and silent smile. When asked the date of their birth, their wrinkles — the Tamil characters of the records — give away very little and force scholars into differing interpretations with regard to the shape and the layout of the temple in question.

We shall give a short summary of the pitfalls into which one stumbles involuntarily when relentlessly associating a date derived from an inscription with the age of the building on which it is engraved.

In the *first* place, records may occur on slabs used as floor-tiles in the temple-compound, or somewhere else in the village. Such inscriptions have, of course, no value whatsoever for the dating of monuments. Yet, they have been applied for this purpose. *Secondly*, they may be copies of older inscriptions, because the temple was renovated completely in the course of time. Sometimes the renovators were so kind as to mention that copying had taken place. Indirectly such information could be used to trace at least the year of renovation, although often only the most important inscriptions were saved for posterity and these are not necessarily the latest of the older set of records. In the *third* place, inscriptions occasionally lose their dates — which indicates innovation — because the older slabs had to be fitted into the new design, their size hardly ever matching. Then it is often possible to deduce from the name of the king or

of other important persons to which period the record belongs, although the disagreement among scholars about the identity of the persons referred to by the names in the inscriptions, sometimes becomes fierce. There are cases in which one and the same person turns out to have been born in two centuries. A fine example of such a controversy is a temple in the village called Koḍumbāḷūr in the Tiruchirappalli District. For the sake of posterity, a complete genealogy of a royal house is engraved on the walls of this shrine. Instead of receiving a solution for all further problems about the interpretation of names and chronology, the poor geographer must undergo a historical dispute, embracing centuries, without being given a convincing answer. One can imagine that the art-historian Barrett — one of the few scholars writing about Early Coḷa art and architecture — once escaped from such an inscriptional riddle by consulting the fabric itself <sup>1)</sup>, as a result of which he added to that riddle the most unusual phenomenon that written words are silent, while stones appear to speak. In the *fourth* place, the dutiful brahmins who recorded the information in stone often did not take the trouble of mentioning the name of their king, but merely gave his honorific title such as Rājakesari(varman) or Parakesari(varman), titles which were used by the Coḷa princes in turn. This, of course, reduces the number of possible identities, but the problem of the name of the king involved remains unsolved. The fact that the name is not mentioned merely becomes a problem, because dates as we know them were not used by the Coḷas; the year of a king's reign was mentioned by indicating the position of the stars. In the *fifth* place, in some areas of the Coḷa territory, the habit of recording the daily or annual gifts on temple walls — the usual content of these inscriptions — was hardly developed. Only now and then an important event was reported *in extenso*. Under these circumstances it is not surprising that some scholars erroneously took the year mentioned in the record as the date of the temple. However, it is obvious that the building itself could be much older. In the *sixth* place, the year of construction or the year of consecration is rarely mentioned. Since only twenty monuments out of roughly two hundred possess stones on which this piece of information was engraved, we are forced to believe that these facts were not considered worth mentioning! When, apparently, it was not customary to report the consecration — though it would seem to us to be the most important event which could happen to both the founders and the building — it is unlikely that the earliest recorded gift was at the same time the very first ever made to the shrine. We simply do not know the criterion for the engraving of such a minor fact.

The above six points may have clarified that "the horse is put behind the



cart", when monuments are dated merely on grounds of inscriptional evidence.<sup>2)</sup> It rather "thrusts a spoke between the wheels" and thus the voyage to our final destination — the discovery of the stylistic development of Early Coĵa architecture — is bound to fail.

We summed up somewhat extensively why the oldest dated record on a temple wall cannot provide a sound basis for dating a monument. Unfortunately, dated buildings are the only means to test whether or not a hypothesis with regard to a stylistic development is valid. Realizing that securely-dated Early Coĵa shrines are rare, we had to follow a procedure in which the results deduced from one hypothesis, viz. the dates of monuments, were collated with the outcome of other hypotheses. In those cases in which the assumed dates coincided we used these dates for a very general, chronological sequence of temples. Only after arranging them in this way a more detailed description of the buildings was possible and the characteristics and development of Early Coĵa architecture could be traced. The crucial question was which hypotheses could be sufficiently substantiated to produce acceptable dates.

## **2.2. Hypotheses relating the location of a building to its date.**

In order to avoid a situation in which a hypothetical, chronological arrangement of style features is used as "evidence" against other arrangements of an equally uncertain kind, we searched for "external evidence". In our opinion this type of evidence can be found in the way the Coĵa monuments are distributed over the area. As a result of our training as a social geographer we were inclined to consider Coĵa temples primarily as a group of *localized objects*. It seemed to us that apart from the obvious characteristics which are important to an art-historian, the *locational characteristics* should also be taken into consideration. The locational characteristics of a building depend on:

1. its absolute location, viz. its location in a particular place;
2. its relative location, i.e. its time, cost or social distance between one or more other locations to which it is related; and
3. its location as a point in a particular distribution-pattern.

*Ad 1.* The relevance of associating a location with its environment can best be illustrated by the following example. A region can be characterized by its soils, its geology, its irrigation-system, or by its population. The quality of the soils correlates with the population density. From the geology we learn which raw materials could be selected as building material; from the irrigation-system it can be deduced how the population was distributed over the area.

All these factors influenced the development of a regional style variant. In an area intersected by many rivers bricks made of river-clay will occupy an important place among the building materials. A combination of wooden beams and brick, for the frame and the walls of a building respectively, can be expected when there is sufficient water in the great river-valleys and their environment to sustain forests for the supply of timber. The situation is quite different in those areas where large rivers are lacking, for there is no raw material for the production of bricks, as only sands and gravels are available from the beds of the often tiny streams. Moreover, especially in India, there are extensive areas with either hard materials like quartzites, granites and gneisses, or softer materials such as sandstones and tuff. The last two types are easy to quarry and to tool and seem to have inspired artists to create miracles of lace-like patterns worked in stone, whereas such lace-covered monuments do not occur in the plateau country.

As for the population, it can be prosperous or poor, tolerant or dogmatic with regard to religious matters and can have reached a particular stage of technical or economic development. All these features somehow determine the manner in which the shrines were envisaged. It is evident that the soil and the geology of a region do not change considerably over a longer period. Their stability could be the reason why one or more features do not change either. On the other hand, characteristics of a population are changing constantly and with them many stylistic features.

As examples of relative location are for instance the manner in which the distance between the building and the source of its building material can be bridged. Owing to fluctuations in transportation techniques distances may be long or short, a fact which might influence the size of a shrine. Relative location can also be expressed as social distance. Family relationships in a caste society, for instance, can tie settlements more closely together than the time or cost distance between them would seem to suggest — a fact which might be responsible for the occurrence of identical types of shrines located at great distances from each other.

Monuments can be dated tentatively on the basis of their location under the following conditions. In the first place we should be able to formulate a set of acceptable hypotheses relating the shape and size of temples to the distance between their sites as well as to a number of characteristics of the area in which they occur. Secondly, we need at least some information regarding changes in regional characteristics and/or in the capacity to cross distances during the period to be analyzed. If these conditions are fulfilled, then the shape and size



of localized buildings can be associated with a particular, historically dated change. Since we have already pointed out that in our case historical data are scarce these first two approaches may not be easy. However, in combination with a third method they will prove to be more useful.

*Ad 3.* Instead of treating a temple as an individual object it can be regarded as part of a class on the basis of one or more characteristics which are considered significant to a particular problem. When we map these features a distribution-pattern will appear which shows either a uniform spread of one particular variant (for instance a dominance of square roofs), or a chaotic spread in which many variants seem to be haphazardly distributed over the area (for instance square, circular, octagonal and apsidal roofs occurring next to each other), or a rather systematic clustering of some variants creating regions in which one particular variant dominates (for instance a region characterized by temples with square roofs surrounded by an area in which the octagonal shape occurs most frequently).

How to interpret these various types of distribution-patterns? Once again a set of hypotheses should be formulated. However, this time they are directly derived from the distribution-patterns and not from — usually hardly available — historical information. Of course, an infinite number of distribution-patterns can be imagined and, consequently, an impressive amount of theories regarding the way they should be interpreted. In our case we are only interested in those interpretations which allow us to relate the location of a monument to its date.

The kind of distribution-patterns which can be connected with this type of interpretation should exhibit distinctive clusters of variants of one or more selected features. In case the position of the clusters can be related to a known or probable, cultural centre we can infer their relative age and, consequently, the average dates of the shrines characterized by the variants in each separate cluster.

The hypotheses underlying this method are derived from spatial diffusion theories the subject of which invariably is the spread of a phenomenon, idea, or technique throughout a region during a particular period.<sup>3)</sup> We shall now proceed to formulate these hypotheses and explain how they can be related to distribution-patterns.

1. An innovation (or style feature) has its own cultural epicentre from where it spreads in all directions depending on the course of physical, cultural as well as political boundaries or barriers.
2. An innovation (or style feature) tends to spread from its centre of origin with a certain speed depending on the transport capacity of roads and carriage

3. An innovation (or style feature) tends to be adapted in the course of its transmission or even to be overtaken by a more recent variant which either has a more powerful transmittor or is recognized by its receivers as a more agreeable or better contribution to their needs than the earlier innovation.
4. Adoption or adaptation of an innovation (or style feature) depends on the relative distance between settlements. Adoption occurs when distances are short and/or contacts are frequent; adaptation occurs when distances are long and/or contacts are rare or infrequent.
5. Place and time of arrival of an innovation (or style feature) depends on the position of the receiver in a network of interaction such as road-patterns, trade-routes, hierarchical structures of settlements, and family relations.<sup>4)</sup>

Before turning our attention to the distribution-patterns which can be expected on the basis of these five hypotheses we may point out that, theoretically, the first three result in undisturbed, uniform patterns. However, pure distribution-patterns hardly ever exist for they are "spoiled" by irregularities due to either renovations or relics of one or more other epicentres which made their influences felt in the area in question. A further source of anomalies are local peculiarities such as those formulated in the last two hypotheses. These last two aspects will also be taken into consideration in the following section.

### 2.3 Interpreting distribution-patterns as a means to date monuments.

On the basis of the first two assumptions in which the direction of a spread is related to regional characteristics and to speed, a distribution-pattern can be expected as illustrated in Fig. 1a, p. 10. This figure shows the unadulterated adoption of a feature independent of the distance from the cultural centre. When demarcating the three clusters (Fig. 1b) we may conclude that the buildings in region III might be younger than those in region II, while the monuments located around the epicentre were the first to be raised. However, the spread of Fig. 1a suggests more, for there are vast areas which proved to be inaccessible to the particular stylistic feature of which the distribution is mapped. So, we may assume the existence of a countryside which is difficult to cross or a situation in which only pockets of, for instance, Śaiva villages are located in an area dominated by Buddhists or Jains. The first possibility might be easily corroborated by topographical maps. In our case the second possibility cannot be checked since we are insufficiently informed about the spread of Buddhism and Jainism in the Coḷamaṇḍalam. The most we know is that some large Buddhist monasteries existed on the coast and that a few Jain caves were carved out in the

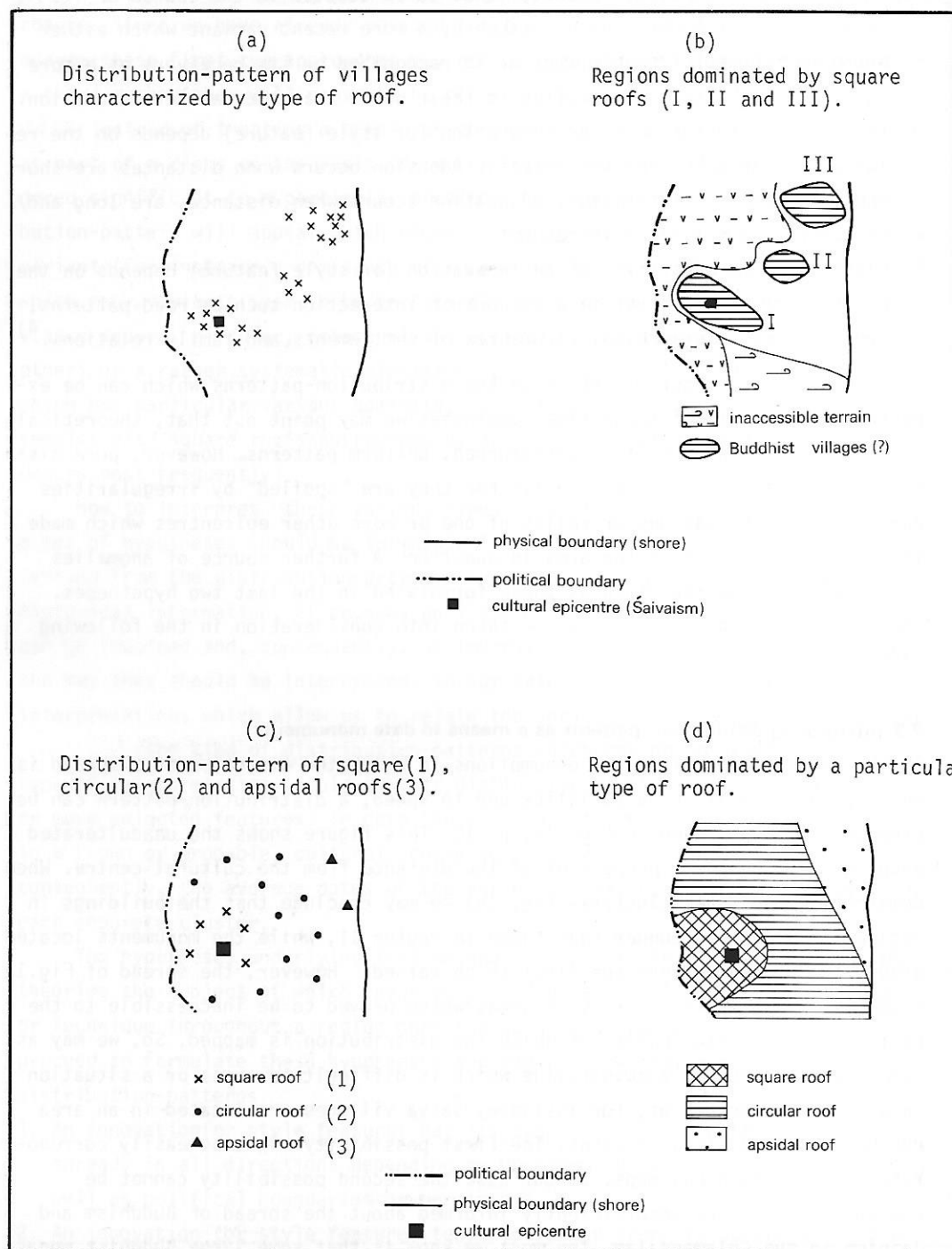
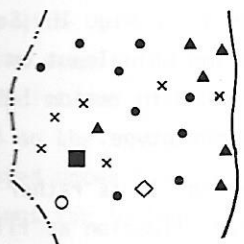


Fig. 1. Various types of distribution-patterns and connected (sub)regions.

(e)

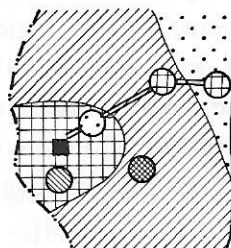
Irregularities in the distribution-pattern of Figs. a and c.



- x square roof (1)
- circular roof (2)
- ▲ apsidal roof (3)
- octagonal roof (4)
- ◇ rectangular roof (5)

(f)

Anomalies in the subregions as shown in Figs. b and d.

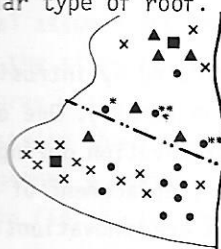


- square roof (1)
- ▨ circular roof (2)
- ▩ apsidal roof (3)
- ▧ octagonal roof (4)
- ▦ rectangular roof (5)
- main road

- - - political boundary
- physical boundary
- cultural epicentre

(g)

Distribution-pattern of temples characterized by a particular type of roof.

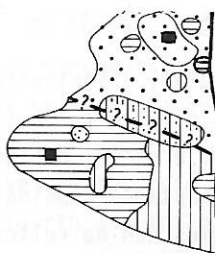


- x square roof (1)
- circular roof (2)
- local variants of circular roof (2', 2'', 2''')
- ▲ octagonal roof

- - - political boundary (assumed)
- physical boundary
- cultural epicentre
- ? - ? - zone of contact between two cultures

(h)

Subregions dominated by a particular type of roof.



- square roof
- ▨ circular roof
- ▩ variants of circular roof
- ▧ octagonal roof

plateau country . However, basing ourselves merely on the location of the religious monuments dating roughly from the period between A.D. 850-1050 we may conclude that the population was then concentrated in three large clusters situated along the most important rivers of Tamil Nāḍu (cf. Fig. 1a and map 3). Consequently, any temple located in either region II in Fig. 1b (South Arcot on map 3) or region III in Fig. 1b ( North Arcot and Chingleput on map 3) and exhibiting features of which the origin can be traced to region I in Fig. 1b (Kāverī area on map 3), must be younger than its prototype.

The simplicity of the distribution shown in Fig. 1a is rather unrealistic. Normally we are confronted with a more complicated situation as illustrated in Figs. 1 c-d, p. 10. The interpretation of this type of pattern is, once more, rather simple. There are three clusters of which the eldest is the core. Around the central region are two zones. The outermost zone contains buildings which were raised most recently. Each change in shape coincided with a further cultural annexation of the entire area. A similar simple pattern is found in the Kāverī area, provided we accept the Coḷa capital Tañjāvūr as an epicentre. If not, then the map could equally be interpreted as a development in the reverse direction (cf. Fig. 1d and maps 5-6). However, the first interpretation presupposes either an empty area in which, for instance, Śaivism could spread unimpeded from the capital to the coast — concurring with the regulation of the Kāverī — or an area populated by people of heretic denomination who were eliminated or converted to Śaivism in the course of time. Future research may well reveal that either of these historical processes or a combination of both started out from Tañjāvūr.

In general, distribution-patterns are contaminated by intrusions as illustrated in Figs. 1 e-f, p. 11 (cf. maps 5-11 and tables A-E). One of the anomalies in Fig. 1e can be explained as the result of renovation during the phase in which, for instance, apsidal roofs became popular (replacement of 1 by 3). Other irregularities can be relics of an older culture or are renovations during a period in which the apsidal form ceased to be attractive (4). They can also be the result of an alien influence in the area (5). For instance, rectangular roofs are restricted to Vaiṣṇava shrines and as such they are anomalies in an area where during a particular period only Śaiva temples were erected. The location of the 1 along the coast might be the consequence of a direct road-connection between the capital and the harbor (Fig. 1f). More inland, the 1 in a field of 2's might be situated in a settlement along this road. In all cases the irregularities or anomalies can be roughly attributed to a particular phase but not to a particular

ular period. The 3 in the area dominated by 1's is about as old as the buildings raised in the region characterized by 3's; the temple with the octagonal roof(4) was not designed during the phase in which the square roofs(1), were fashionable; the monuments with square roofs outside the 1-area are more or less contemporary with those built in the core and indisputably older than the shrines of the areas in which the circular and apsidal roofs occur.

We may point out that the interpretations of this type of pattern are partly based on the assumptions mentioned under 1-3, pp.8-9 in combination with that formulated under 5, p. 9. The last seems to be particularly applicable to a few buildings far to the north of the Kāverī area, situated along an ancient road connecting them with Tañjāvūr(map 6).

Figs. g-h, p. 11 show combinations of situations illustrated in the previous figures. However, there are two important additions. Firstly, a second epicentre is "spoiling" the picture. Secondly, the number of objects in each cluster as well as the distances between their settlements differ. Due to the difference between the frequencies of the various anomalies, we may conclude that the few objects with feature 4 in an area characterized by 1's or 2's are relics of the epicentre located in the north. Consequently, they are older than the other objects in that area, but younger than the objects with feature 4 located in the north, due to the distance between their centre of origin and their location. For the same reason objects characterized as 2', 2" or 2''' might be younger than those indicated as 2 and located in the southern cluster. However, it is impossible to decide which of the three local variants is older without formulating additional assumptions regarding this subregion. In the South Arcot District for instance the sites are widely separated and their monuments are characterized by features which can be associated with either the Pallava or the Coḷa style. Each shrine shows a specific combination of these features. These local – or even regional – variants result in a distinctive cluster resembling that illustrated in Fig. 1g (cf. map 5). In view of the fourth assumption relating distance between settlements to a process of adoption or adaptation, the uniform distribution in the southern region of Fig. 1h can be explained by the fact that the area is thickly populated in contrast to, for instance, the central region. Probably as a result of this the latter shows no uniform spread. In the small but densely populated area around Tañjāvūr there is unfortunately no uniform distribution-pattern at all in the case of some of the style features (cf. maps 6, 9-10). In those cases in which a spread around an epicentre shows no uniformity whatsoever we have to assume an overflow of experimental ideas towards its immediate neighbourhood.



From the simple examples just mentioned it is obvious that an analysis based on the distribution-patterns of Coḷa temples is promising, for many of the style features show one of the patterns discussed above. However, it is equally clear that such an analysis should only be carried out when the number of localized objects is large enough to establish (sub)regions which in addition should be studied in relation to each other. In other words, the only type of distribution-pattern which allows us to attribute its objects to a certain period, is that which can be demarcated as (sub)regions on a map. The position of these subregions in relation to each other and to the known or assumed cultural centre provides an insight in their relative age and consequently, in the dates of the objects characterized by their variants.

From the first condition it is obvious that the number of variants of one single feature determines the minimum number of objects to be studied, or to put it differently, the more variants are known of a specific feature, the larger the number of objects to be taken into consideration. It is also obvious that each time a new feature is analyzed the distribution-pattern of its variants may show subregions different from those studied earlier on for the simple reason that — apart from its number of variants — each feature is characterized by its own spread, speed, direction and acceptability.

The second condition presupposes the existence of one or more epicentres, for without these the relative position of the subregions cannot be determined.

Before deciding which stylistic features might demonstrate suitable distribution-patterns we should like to point out that an analysis based on distribution-patterns presupposes the existence of either a region with well-defined boundaries or of a region with boundaries demarcated by the extension of a spread. The characteristics of the regions thus defined can be inventorized and related to the type of distribution-patterns they contain. Unfortunately, the boundaries of the Coḷa empire as well as of its divisions are unknown. Moreover, they shifted almost every fifty years. Furthermore, initially we did not know which objects in the rather unlimited area of South India ought to be selected. For, in order to relate distribution-patterns to regional characteristics we have to decide first which objects are to be investigated. Once we know the location of the objects we can demarcate regions and inventorize their features. So, we have to start with explaining the procedure of selecting the monuments before we can seriously discuss which of their features should be studied.

### 3. Locating temples and demarcating regions

#### 3.1 Selection of temples to be investigated.

We started our investigation by consulting the excellent publications of the Archaeological Survey of India dealing with South Indian Epigraphy. This almost inexhaustible source has one great advantage: apart from the names of the temples it gives their locations per district and, where possible, a translation of their inscriptions. On the basis of these translations we decided which temples had to be visited. The criterion for the selection of a particular shrine was the presence of records in the name of one or, preferably, more Early Coḷa kings (appendix 1). This may seem a rather arbitrary criterion, but it should be realized that the epigraphical reports are the most comprehensive source as compared with other publications, for they contain the maximum number of published sites. Moreover, during the last two centuries, the British district collectors and the civil servants of the Archaeological Survey carefully combed out the South Indian countryside tracing as well as mapping monuments and translating as well as publishing inscriptions in due course. Reconstructed temples which had lost their original records and monuments without inscriptions cannot be discovered this way, so our inventory is incomplete. On the other hand, our method does not really require a complete picture, for as long as there are sufficient objects distributed in such a way that (sub)regions can be demarcated, the missing values, viz. the characteristics of lost monuments can more or less be predicted.

Another point is whether it was correct to limit our inventory to temples carrying inscriptions of the first ten Coḷa kings, their reigns covering a period of almost two centuries, viz. c.A.D.850-1044. Usually, the Early Coḷa period is considered to end either at the start of Rājārāja's rule in A.D. 985 or at its end in A.D. 1014, whereas the beginning of the Early Coḷa phase is placed in A.D. 850, or 870, or even c. A.D. 890. For this reason we decided to include in our survey all monuments with records of Rājendra I (A.D.1012-1044) and Āditya I (A.D.871-907) as well as the obscurely dated, or even more often, undated shrines attributed to the period during which Vijayālaya (c.A.D. 850-871) was ruling in some parts of the delta. This way we created a wide margin on either side of the "stylistic" phase which is normally assumed to start around A.D. 870 and to end in A.D. 1014 at the very latest.

Our inventory amounted to roughly 200 sites. About 150 monuments appeared to be still in existence. These are enumerated in appendix 2 while their locations are shown in map 3. The list on which we originally based our fieldwork between 1966 and 1971, deviated only slightly from that published by Balasubrah-



manyam in his second and third volumes on Coḷa architecture(1971,1975). Returning to Tamil Nāḍu for a short visit in 1977, we completed our list on the basis of Balasubrahmanyam's additional information.

### **3.2. Demarcating regions on the basis of the distribution of temples.**

Mapping the sites of the monuments it appeared that almost all are located in the coastal area of Tamil Nāḍu(map 3), except for Kolar, a town along the road to Bangalore. The distribution of the Coḷa temples over this vast area is rather unbalanced, for the majority is situated along the many branches of the Kāverī. A second large cluster lies between the Korttalaiyar and the Cheyyar — an area coinciding with the Pallava heartland. A third, relatively small group is located in the South Arcot District in between the Pallava country and the Coḷa delta. Immediately to the south of the undivided Kāverī and already in plateau country we find a group of rather dispersed sites. It is an area which was at one time inhabited by at least two important communities, viz. the Irukkuvel at Koḍumbāḷūr and the Muttaraiyars more to the east. Further south no monuments of any importance were discovered. Judging from inscriptional evidence there must have been some buildings with Coḷa records but due to the impact of (Late) Pāṇḍya architecture most traces of these shrines have been erased except for a very small number which are widely separated and which can, therefore, not be considered a subregion(see also appendix 16). Consequently, the monuments supposed to have been built during Coḷa rule can be subdivided into four distinct clusters of localized objects not only because they are obviously individual regions but also due to the fact that the history of these four regions can be linked either to a well-known dynasty and community or to no community at all as in the case of the South Arcot District.

Having established which temples should be investigated as well as the areas in which they are located and the period about which information had to be collected, we could now settle the question which style features provide distribution-patterns on the basis of which the dates of the monuments characterized by these features, can be deduced.

## **4. Characteristics of and developments in demarcated regions in relation to a selected set of temple features**

### **4.1 Selection of temple features.**

A Coḷa shrine consists basically of a few elements, viz. a base, a body, a cornice and a "roof". The base as well as the cornice are built up of several mouldings; the walls of the body are divided into panels by pilasters and niches; the

superstructure is a kind of pyramid consisting of at least one element representing a reduced form of the complete temple often surrounded by a string of miniature shrines. These basic elements show variations throughout the first two centuries of the Coja period. However, at this stage of our survey it was impossible to formulate hypotheses with regard to the chronological sequence of the observed variations which could be put to test. Moreover, without further information their distribution-patterns are hard, if not impossible, to interpret (cf. maps 9-13). Consequently, we had to look around for other aspects. These are of a structural nature.

The Early Coja temple is a mass of sculptured blocks enclosing a dark cella or garbhagṛha<sup>5)</sup> and a narrow corridor. The size of the sanctum cannot change much — as we already indicated on pp.xxvii-xxix — but variations in height can be observed. Since height is directly related to size, a change in height results in an adaptation of the ground-plan and *vice versa*. In contrast to other aspects of a shrine, variations in height and/or size can be translated as developments due to changing conditions of the physical and cultural environment in which the temples were raised. So, we first had to settle the question which developments in height and/or size of a shrine might have been likely. Then we had to find out whether or not these supposed developments appear in their distribution-patterns showing configurations of subregions as indicated in Figs. 1a-h. Finally, we had to corroborate our conclusions with whatever inscriptional evidence is available about the monuments as well as the historical events in the four main regions between A.D. 850 and A.D. 1050.

#### 4.1.1. *Development of height: demarcating subregions.*

It is relatively simple to pile up masses of stone blocks. On the other hand, the Coja architects were almost certainly not familiar with the rules of gravity other than by way of experience. So, in the early days each construction must have been an experiment which was apt to collapse. Now, it is obvious that an ekatala is a more stable structure than a building with two or more storeys. Therefore, we assume that Early Coja architecture developed from a style characterized by ekatalas to one in which gradually taller buildings were constructed. This development must have been accompanied by an increasing knowledge regarding instability problems and their technical solutions.

This hypothesis is not contradicted by the distribution-pattern of ekatalas, dvitalas and tritalas as illustrated in map 5 — at least not in the subregions surrounding the Coja capital. Elsewhere this assumption does not seem to work, for the eastern part of the delta is a subregion dominated by ekatalas, whereas

we would have expected tritalas. The picture in the South Arcot District and further north is rather chaotic. In the Pallava territory tall buildings are common phenomena as early as the 7th century. However, the construction of Pallava shrines is basically different from that of Coḷa monuments (cf. pp. xxviii and xxx). It is, therefore, out of the question that knowledge was transferred from the Pallavas to the Coḷas.

In view of all this we have to assume that variation in height was either for some reason bound to a particular region, or was the result of a technical development as seems to have been the case in the core of the Coḷa country. In the latter case we shall have to explain the observed reduction in height in the eastern parts of the Kāverī delta.

#### *4.1.2. Development of size: demarcating subregions.*

Size can be related to the availability of building materials. When the king or the architect decided to use granite slabs instead of bricks — as can be inferred from inscriptional evidence<sup>6)</sup> — then distance from the quarry to the site might have been a limiting factor with regard to the size of a building.

The size of a sanctum can be related to that of its ardhamāṇḍapa or hall. This corridor is small as long as the number of devotees is limited. Whenever this increases the hall must be enlarged. Consequently, the proportions of the sanctum and its height have to be adapted as well.

The size of a sanctum and/or hall depends on the number of niches in their exterior walls. A tendency to multiply iconographical representations in stone or in painting, therefore, implies an enlargement of the size of the ground-plan as well as an increase in the height of a building.

Before turning our attention to the question what might have caused an increase in the number of devotees and/or niches we should first turn to maps 5 and 6. Here we see that the distribution-patterns in the Kāverī area as well as in the South Arcot District reveal that the temples are taller and larger as the distance from Tañjāvūr increases. Since the Kāverī area includes the countries of the Muttaraiyars, Irukkuveḷs and Coḷas, it implied that three out of four main regions display a distribution-pattern which was sufficiently promising to continue our research as will be demonstrated in chapter three.

### **4.2. Characteristics of and developments in demarcated regions in relation to height and size of a building.**

#### *4.2.1. Topographic diversity.*

The Pallava territory between the Korttalaiyar and Cheyyar consists of granites,

gneisses and charnockites near Māmāllapuram and gondwana sandstones near Kāñcī. This rather infertile area is intersected by moderate to small, narrow river-valleys the largest of which is that of the Palar.

Pallava constructions are based on the principle of piling up storeys in ever diminishing sizes (p. xxviii). As long as building material is available shrines can be high, for they are stable. The only limiting factor with regard to height might have been the vertical transport of the sandstone and granite slabs. On the other hand, it must be realized that the ceiling of each storey provides a comfortable platform on which the blocks for the next tala could be prepared. These blocks could be brought up through a hole in the platform or via an earthen ramp on the outside of the finished part of the building. In view of this it is obvious that the availability of building material is hardly a limiting factor with regard to the size of Pallava monuments. At the same time the technique of Pallava architecture allows for tall, and consequently, for large buildings.

The situation in the South Arcot District is different. Here tiny rivers flow through extremely narrow and short valleys in a predominantly laterite area and widen for several kilometres before they empty into the Gulf of Bengal. The distribution of rainwater is regulated by means of tanks or reservoirs. The majority of villages and of Coḷa temples is located near the tankbunds. These are slightly curved, earthen dams which stand perpendicularly on the slope of the area. The waters of the monsoon are caught behind them. These reservoirs have existed in South India since the earliest times, for gifts and ordinances concerning the maintenance of tankbunds form an important subject in the epigraphical records.<sup>7)</sup> Tanks are distributed as regularly as possible over the land-surface in order to guarantee a maximum water-storage, given an average annual rainfall. Consequently, the distribution of "tank" temples is far less concentrated than that of the "delta" or "river" shrines. The average distance between the villages — and so between the temples — is greater in the crystalline area than in the valleys and the delta. These two facts influenced the development of temple architecture in this district. For, the occurrence of granite outcrops in the laterite area is small, and consequently, the appropriate building material is scarce, resulting in a predominance of ekatalas in this area. Due to the large distance between settlements these ekatalas are, moreover, bound to display distinctive, local variations.

The dominant geological formation along the Kāverī and in the delta is clay. So, we assume that the few buildings which were not constructed of wood but of brick were based on the principle of corbelling, as was the case further north.

Contemporary, secular structures which might confirm this view have not survived. However, a strong argument in favour of our assumption is the fact that the Early Coḷas applied corbelling in their granite architecture which in mediaeval South India was based on an entirely different principle as indicated above. It seems, therefore, that an area with a brick tradition goes through a different architectural development than a region situated right in the middle of plateau country, the more so because a sudden switch from the use of bricks to granite seems to have taken place.<sup>8)</sup>

In view of the presence of subregions with dvitalas on either side of an area with ekatalas we assume that the latter is the oldest tract and that the two subregions containing dvitalas are later and more or less contemporary with each other. This implies that in the initial stage of Early Coḷa architecture know-how — more than distance — may have been the decisive factor. For, the dvitala area to the south of the undivided Kāverī — inhabited by the Irukkuvels and Muttaraiyars — is plateau country in which granite was definitely easily available. On the other hand, distance could have been a problem for the construction of really tall temples. With the exception of the Rājarājeśvara at Tañjāvūr and the Gaṅgaikoṇḍacoḷeśvara at Gaṅgaikoṇḍaḷapuram, all Early Coḷa monuments are strikingly smaller than most of the granite and sandstone Pallava shrines which are much older but built right in the middle of a granite or sandstone outcrop. They are also distinctly smaller than the sandstone temples constructed by the Eastern Cāḷukyas and the Bāṇas at more or less the same time as the Early Coḷa shrines.<sup>9)</sup>

Remains the question how the Coḷas learned to quarry and to tool the hard granites they so obviously enjoyed using. Topographic particularities should not be considered divorced from technical level and skill as this merely leads to the appreciation of a few materials. Individual technique and skill are qualities originating in a large group of people. This was as true in Vijayālaya's time as it is today. Technical knowledge is not "place-bound"; it can be bought or taken along as booty. There is no other plausible explanation for the sudden switch of Vijayālaya's architects from brick to a material which was first of all not found in the immediate neighbourhood and, secondly, many times harder to tool. There are other examples of this course of events. For instance, the Virūpākṣa temple at Paṭṭadakkaḷ, which was built by a sthāpati from the south.<sup>10)</sup> The Coḷas scored great victories during the first 70 years of their rule and conquered many areas such as that of the Pallavas in the north and that of the Pāṇdyas in the south. In view of this it is quite likely that the Coḷas used the (forced) services of the Pallavas and Pāṇdyas — the first famous for their

monoliths and structural designs, the latter for their cave temples.<sup>11)</sup>

#### *4.2.2. Position of epicentres and their peripheries.*

In order to confirm the assumed development from ekatalas around Tañjāvūr to a stage in which dvitalas were erected followed by a period in which the tritala became a technical possibility, we should first establish whether or not Tañjāvūr could have been the epicentre in the initial stages of Coḷa architecture and whether or not products of other epicentres interfered as obvious irregularities in our neat distribution-pattern. If Tañjāvūr was a cultural epicentre then it must have been an important political centre as well. Now, in general, political power nearly always has a strong economic base. Usually, the ruling class has a well-organized army and administration to safeguard that base.

Taxes can be levied and collected — an advanced form of economic exploitation — or, less subtly, carefully planned raids can be organized. In both cases the result is a flow of money and goods towards the political centre.<sup>12)</sup>

Through their inscriptions and epitheta the Coḷa kings impress one as rulers who possessed great political power in three distinctive periods, not only in South India, but also in parts of Southeast Asia.<sup>13)</sup> They were able to dominate longest and most continuously in the area now called Tamil Nāḍu. This appears for instance, from the many records on temple walls reporting the visits of royal accountants who came to check whether the villages and temples had duly paid their taxes. In case of back-payments, measures were immediately taken.<sup>14)</sup> From this large area money and goods flowed to Tañjāvūr, the capital of the Coḷas, situated in the apex of the Kāverī delta.<sup>15)</sup> In addition, booty of successful campaigns or maritime expeditions was incidentally brought to Tañjāvūr via Kāverīpatnam, the port on the Gulf of Bengal.

The administrative organisation of the Coḷa empire can more or less be compared to the system of the present districts and their subdivisions, the taluks. As a result of the continual change of names and the accompanying shifts of borders, the original nomenclature provides an opaque picture, making it completely impossible to trace temples in the field and map them.<sup>16)</sup> We have, therefore, used the present division in districts and taluks for our survey. It seems useful to start with a short review of the districts in which Coḷa temples occur and a concise description of the political relation between these districts and Tañjāvūr (map 2).

Although the Coḷas did not originate in Tañjāvūr District, it is undoubtedly the most important area, both for these rulers and for our investigation. The



first king, Vijayālaya, presumably came from Uraiyūr near the present town of Tiruchirappalli and settled in the city of Tañjāvūr which is situated ca. 10 km east of Śendalai, the capital of the Muttaraiyars (map 1). Both communities lived in continual discord, most probably because they had identical objectives: viz. the conquest of the fertile delta, in the apex of which they were almost vis-a-vis pushing each other aside. This area was situated between two powerful and influential nations, the Pallavas in the north and the Pāṇḍyas in the south. The Tañjāvūr District can be said to have had a kind of double peripheral position to the cultural, religious and political powers of the Pallavas and the Pāṇḍyas seated in Kāñcī and Madura respectively. The Muttaraiyars and the Coḷas tried to achieve their aim by becoming vassals of one of these great powers. The Coḷas apparently, were lucky and gained the strongest ally, for the Pallavas defeated the Pāṇḍyas and the Muttaraiyars, thanks to the Coḷas. In gratitude the Coḷas were allotted large parts of the delta.

The Districts of North Arcot and Chingleput form the area where the Pallavas were lord and master during the three centuries preceding the rise of the Coḷa empire. Kāñcī was their capital, situated on the Palar, in the centre of the realm, almost 40 km. west of Māmallapuram, the port at the mouth of that river. Already long before the Pallava state grew into a powerful empire, Kāñcī was a world-wide known Buddhist centre. During Pallava rule Māmallapuram, better known by the name of Mahabalipuram, became a kind of open-air workshop, situated on the boulders of a granite outcrop protruding into the sea, where a number of new architectural forms were tried out. These exercises in sculptural "architecture" determined the character of the structural style in this part of India for many centuries.

While the achievement of the Pallava sthāpatis must have had a cultural impact on their Coḷa successors, the political relations changed in as much as the Pallavas in their turn became vassals of the Coḷas. Their territory began to function as a kind of spring-board from where the Coḷas and the Pallavas penetrated into the realm of the Eastern and Western Cāḷukyas and their vassals such as the Bāṇas. A study of the inscriptions on the temple walls in this region shows, that during the whole period of our investigation, contacts between Tañjāvūr and this area were quite intensive. Almost every Coḷa king spent some time there fighting, building temples and erecting paṭṭapaḍas or memorial shrines over the remains of his predecessors.<sup>17)</sup> Consequently, the supposition that the buildings in this area are witnesses of strong Pallava rather than Coḷa influences does not seem justified.

The Districts of Tinnelveli and Madura together form the region ruled by



the contemporaries of the Pallavas, the Pāṇdyas. Little is known about these areas.<sup>18)</sup> There are no structural temples that can be dated with certainty before A.D.1000. On the other hand, there are a large number of crude cave-strines, which are considered the predecessors of the structural Coḷa temples. However, the Pāṇḍya sculptors did not possess the skill to tool the hard granite of their region in the refined manner of the Early Coḷas. Taking into account that the Pāṇḍyas and Coḷas were alternately allies and arch-enemies,<sup>19)</sup> it may be assumed that the temples built during the time that the Coḷas could consider the Pāṇḍya territory as part of their empire, will rather belong to the cultural domain of the Coḷas than to a regional Pāṇḍya variant, since the Coḷas employed more capable artisans.

The Tiruchirappalli District nowadays has a shape which is difficult to fit into the administrative division of the Coḷa period. The district consists of two separate units. The most important area lies south of the Coleroon and the Kāverī and west of the Grand Anicut, of which we know that it was a flood-control-dam existing already before the days of Vijayālaya. This region was originally inhabited by the Irukkuvels and Muttaraiyars.<sup>20)</sup> It is a crystalline area except for the banks of the Kāverī forming a golden rim from where the Amarāvātī and the Kāverī join, uptill beyond Tañjāvūr in easterly direction (map 2). Historically, the Muttaraiyars disappeared when Vijayālaya conquered their territory and capital. Their influence on Coḷa architecture may, however, have been considerable since it is generally assumed that all undated small temples in this area were erected by them. In that case they knew already at a very early stage how to build structural temples of granite. However, it should be remembered that this region was for a long time part of the Pallava territory. Perhaps the Muttaraiyar idiom should yet be considered as a Pallava variant.

The remaining part of the Tiruchirappalli District is an extension of the South Arcot District, with the exception of the area bordering directly on the Coleroon. This zone belongs both geomorphologically and socio-economically to the delta. The whole region north of the Coleroon is characterized by tank-irrigation. There are several rivers like the Ponnaiyar and the Manimuktam, but these are small and have cut into the crystalline so that here — unlike in the delta — an abundant supply of riverwater is lacking. So, villages as well as Coḷa monuments are widely separated from each other. The area never was the centre of an important dynasty. It should rather be regarded as the battlefield of all the great South Indian powers in turn defeating each other. The conquerors used to give a more permanent character to their campaigns here by building temples in their names. The first great defeat of a Coḷa ruler also

took place in this region. This happened to the "invincible" king Parāntaka I, "harbinger of bliss and progress", who was beaten devastatingly in the 42nd year of his reign — A.D. 949 — by the even more invincible Kṛṣṇa III of the Rāṣṭrakūṭas. After that the entire area came under their influence for some thirty years.<sup>21)</sup> Only about A.D. 970 would Uttama Coḷa recapture the lost territory.

In view of all this it is obvious that Tañjāvūr may well have been the centre of Coḷa culture as early as the reign of Āditya I. Moreover, irregularities in the distribution-pattern of temples with regard to height and/or size in the Kāverī area can be explained as relics of Pallava influences which must have extended considerably to the south. However, these irregularities could also be the result of the socio-economic position of a settlement in relation to the Coḷa capital.

We assume that the position of a settlement in the bureaucratic hierarchy played a role in the composition of its temples. This assumed relation can only be established through a careful study of inscriptional evidence, because the present size of the villages in Tamil Nāḍu makes it hard to believe that they were once bustling and economically prospering towns as the overwhelming presence of their far too large temples might seem to suggest. In the records a distinction is often made between ordinary villages, brahmin settlements and merchant towns, the ūr, the caturvēdimaṅgalam and the nagaram respectively.<sup>22)</sup> Unfortunately, the terms are applied without consistency, or perhaps the meaning of the terms changed in the course of time, so we cannot use this typology as an explanation for specific distribution-patterns.

On the other hand, it seems likely that temples located in the nagarams will distinguish themselves from those in the ūrs because merchants indeed have more contacts with people from beyond the immediate neighbourhood of the village, which means that, theoretically, they would be more open to alien ideas, or could even be the medium through which new ideas were introduced. Merchant towns, moreover, are on the whole more prosperous than farming communities, so they are able, again theoretically, to spend more on the embellishment of a temple. Although we are not in a position to provide a map on which all types of settlements are indicated due to the absence of reliable inscriptional evidence, a single deviation in an otherwise uniform distribution-pattern can occasionally be connected with the former existence of a nagaram in that particular locality, assuming that there were far more ūrs and caturvēdimaṅgalams than nagarams.

However, irregularities or anomalies can also be related to the social status of the founder of a shrine who's name occurs occasionally on the walls of his or her temple.<sup>23)</sup> The persons mentioned in such inscriptions are in the first place kings, their spouses, sons and daughters. In addition there was a less illustrious category, such as generals who successfully assisted their king in his campaigns and had, therefore, become rich, local chieftains and priests of important religious centres. The great differences between the financial resources of royalty and private persons will be demonstrated in the distribution-pattern of their temples, since a king is in a better position to commission the construction or renovation of a temple than a general, a merchant or a priest, because his purse will not be empty after financing a building. He will most probably have had a court-architect who — in times of military successes and of prosperity — was permanently employed. For this reason, these temples — though possibly widely distributed — would show greater uniformity than shrines financed by commoners, even if the latter occur within a rather small area, because it is less likely that they were designed by one and the same person.

As a rule temples built by a royal person will be larger and taller than those commissioned by wealthy citizens. Since size and height are related to the financial means of either king or citizen, we shall now survey the changing prospects of the Coḷas and their people during the first two centuries of their history. Only then we might be able to attribute size and/or height of a building to a particular period.

#### *4.2.1. Periods of prosperity and decay.*

As indicated in the previous paragraph, the various phases of provincialism in the development of the Coḷa style can be linked up with periods of political confusion. The Coḷas have known more times of prosperity than of decay. The whole period is normally divided into three phases.<sup>24)</sup>

The first phase is usually taken to start in A.D. 850, the year in which Vijayālaya had probably consolidated his realm around the town of Tañjāvūr. It ends ca. A.D. 940, although Parāntaka I suffered his first great defeat ca. A.D. 949. The kings ruling during this period are:

Vijayālaya (c. A.D. 850-871)

Aditya I (A.D. 871-907)

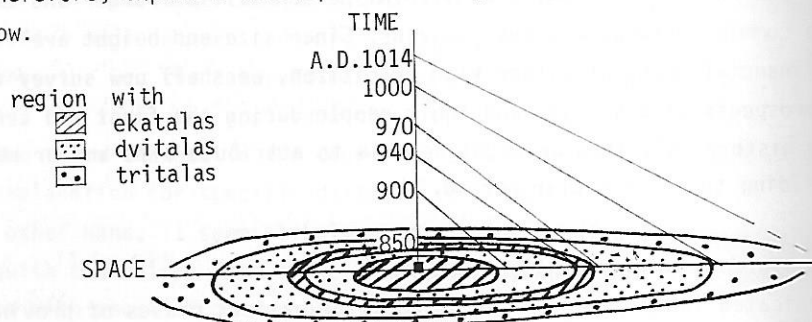
Parāntaka I (A.D. 907-955)

The second phase embraces about 30 years between A.D. 940 and 970. This period is characterized by bitter succession disputes among the sons and

nephews of Parāntaka I. The most radical of all was Uttama Coḷa, who removed one of the two remaining pretenders to the throne — Āditya II — by the sword. He owed his throne mostly to the "true nobility" of the youngest descendant of this famous family, Arumoli, later known as Rājarāja I, who dropped his claim to the throne on the condition that his uncle Uttama would appoint him successor after his death.<sup>25</sup>) The kings wielding power for a shorter or longer period during these tumultuous times, are:

Gaṇḍarāditya	(A.D. 949-957)
Ariñjaya	(A.D. 956-967)
Sundara Coḷa (Madurai-Koṇḍa)	(A.D. 956-973)
Āditya II (Pārthivendra Karikāla)	(A.D. 964-969)
Uttama Coḷa	(A.D. 969-985)

The third phase starts only after Uttama Coḷa had consolidated his power, i.e. around A.D. 969/970. It is usually taken to end with the death of Rājarāja I in A.D. 1014. The first and third phase can each be subdivided into periods of rise, of efflorescence and of diminishing prosperity, because it is likely that a temple style develops only during a long and prosperous period. We can, therefore, expect a development of height and size as shown in the graph below.



Comparing this graph with the actual distribution-patterns of height and size as shown in maps 5 and 6 we can infer that they tally as far as height concerned, for the central part of the Kāverī delta is, indeed, characterized by ekatalas. However, the distribution of tritalas as well as that based on number of niches indicate in the first place that the influence of the epicenter must have reached its periphery about A.D. 1000 as the really tall constructions are found in the centre of origin. In the second place we see that the size of the monuments does not show a similar pattern, for the number of niches did not diminish in the middle of the 10th century but continued to increase. In the following paragraph we shall try to relate this alternate development to changes in religious concepts during this period.

#### *4.2.4. Development of Śaivism in Coḷa society.*

In these remote days, religion was an integral part of all aspects of social life. The function of a temple in a Coḷa community was not only to be the centre of worship, but also to be the seat of justice and of the village council. At the same time, the temple compound could be used for educational purposes and entertainment. <sup>26)</sup>

Hindu shrines did not have these social functions from the very beginning. There was a time when the abode of the deity was not much more than a place where people gathered spontaneously to worship a certain manifestation of God. This could be a tree or a large rock which rose mysteriously out of a field in the shape of a liṅga. People also flocked to the birth-places of the early preachers of the reformed religions, Śaivism and Vaiṣṇavism, or to the places where they were believed to have died. In all these localities small buildings were eventually erected. One can hardly imagine that the South Indian temple complexes of today originated from these early primitive shrines. Nevertheless, this development into the immense temple compounds starts, at least in the Kaverī delta, under the first of the imperial Coḷas.

The small shrines — the Tamil word is *koyil* — erected by Vijayālaya, consisted of a garbhagrha with a somewhat smaller ardhamaṇḍapa attached to it. Towards the end of the reign of Rājarāja I the mukhamaṇḍapa became customary. This is a huge hall, often connected to the ardhamaṇḍapa by means of a staircase or corridor, called *antarāla*. Detached from the main building, but within the walls enclosing the grounds, were other maṇḍapas or halls serving various ends such as education, local government and administration, since the temple had gradually grown into the largest landlord of the village through countless gifts of land. <sup>27)</sup> Not only did the compound become larger so as to accommodate its various and ever increasing functions, its external appearance also changed considerably. The supposedly oldest shrines in the area are completely unadorned and without sculptures. By the time Rājarāja I ascended the throne large parts of the temple walls were occupied by images, portraits of important persons, relief carvings, garlands and panels. The possible reasons for this development, in both social and religious respect will now be discussed.

A temple was not only a collection of halls where certain functions took place. It was also the symbol of God — in South India usually Śiva or Viṣṇu. <sup>28)</sup> The temple walls are decorated with the images of the deity. The appearance of a shrine therefore reflects the development of South Indian iconography. If new forms of a deity are accepted for presentation, then problems arise. For, an

architect cannot go on adding ever more niches in an existing type of temple for more and more figures, at least not if he wants to maintain the balanced proportions which are characteristic of South Indian architecture. When extra space had to be created this could only be done by enlarging the building and/or adding halls, called *maṇḍapas*. During this creative period the Coḷa sculptors added several iconographical forms such as

- *Dakṣiṇāmūrti*. This manifestation of Śiva as god of the south has received a fixed place in the southern niche of the *garbhagṛha* until today. In the course of time the covering of the niche and the decoration of the temple walls directly beside it changed. More and more images were added to the otherwise bare walls. They are mostly ṛṣis, ascetics, royal persons and animals.
- Viṣṇu and Śiva in his manifestation of *Ardhanārī* or *Liṅgodbhava* who can be found in the western niche. Sometimes small images of Viṣṇu and *Brahmā* are standing on either side of *Liṅgodbhava*'s niche.
- *Brahmā*, usually portrayed as an old man with a beard, is standing in the northern *garbhagṛha* niche.
- *Gaṇeśa* and *Durgā*. Images of other deities such as *Bhikṣāṭana* are sometimes installed, depending on the number of niches available. As a rule *Gaṇeśa* is placed in the central niche of the southern wall of the *ardhamaṇḍapa*, while *Durgā* usually stands on the corresponding place in the northern wall.

Along with the increasing possibilities to worship various aspects of Śiva and his consort, a completely different form of devotion seems to lose importance, namely that of the *Saptamātrikās* and the *Navagrahas*. Special shrines for these deities can still be found in what are most probably the oldest monuments. However, gradually they were moved to a less prominent place in a *maṇḍapa* or elsewhere and became images without a proper home. In later temples it is therefore no longer possible to decide whether the *Saptamātrikās* and *Navagrahas* were included in the temple ritual at the time of the construction of a particular shrine, because the proof of their existence may have been removed from the temple.

Although the developments in iconography could show a chronologically and most probably a geographically interesting pattern, it is difficult to arrange the temples according to the presence or absence in the niches of the images just mentioned, including whether or not they are accompanied by other figures. Due to kleptomania and sheer rapacity, past and present, such an investigation into the Coḷa contribution to South Indian iconography is virtually impossible. If the sculptures happen to pass into the hands of bonafide travellers, they may end up in museums, but more often than not without an indication of their provenance.



In view of the above mentioned uncertainties with regard to the iconographical layout, a structural development can only be deduced on the basis of the number of niches belonging to the original concept of a temple.

*The expanding pantheon in the Coḷamaṇḍalam.*

The initial stage of the iconographical development in the Coḷamaṇḍalam must have occurred during the Early Coḷa period, i.e. between A.D. 850 - 1014. For, the earliest structural monuments of the area — coïnciding with the territory of the Nattaraiyars — do not have niches, whereas the walls of the huge Rājarājeśvara at Taijāvūr are almost completely covered with images in well-prepared devakoṣas. On the other hand it seems strange that the fully developed iconography of the Cāḷukyas and Pallavas — as realized on their temple walls lavishly decorated with sculptures — was apparently not accepted by the Coḷas in the first century of their rule. This is all the more remarkable, as it is known from traditions and reconstructions that in the Deep South already before the 8th century migrating Nāyanārs and Ālvārs preached the concept of Trimūrti, the three-fold manifestation of God, viz. Brahmā, Viṣṇu and Śiva.<sup>29)</sup>

However, Āditya I was an ardent devotee of Śiva, and — very explicitly — commissioned temples to be built dedicated exclusively to this deity. This attitude stands in sharp contrast to that of previous rulers, for the Cāḷukya, Pallava and Pāṇḍya kings were more liberal and built sanctuaries not only for the Buddha and the Jina but also caves and temples in honour of Viṣṇu and Śiva.<sup>30)</sup> We would, therefore, like to suggest that the first decades and perhaps the first hundred years of Coḷa rule were characterized by an atmosphere of intolerance with regard to three of the most important Indian religions, viz. Buddhism, Jainism and Vaiṣṇavism. Since Vaiṣṇavism had been the main religion of both the Cāḷukyas and the Pallavas and since there is an eternal animosity between Śiva and Viṣṇu with regard to the supremacy of this world and beyond — a conflict which is depicted over and over again in Hindu mythology — it is possible that this divine conflict was decided on earth temporarily in favour of Śiva by Āditya I and his army. This implies an enormous reduction of iconographical representations; the more so since Vaiṣṇava and Śaiva sculptures were in general closely associated and, moreover, often occurred at one and the same site.<sup>31)</sup>

It is possible that the teachers and priests together with the early sculptors had to decide first of all which iconographical representations were pure, Śaiva forms and next which positions on the walls these accepted figures had to occupy. As mentioned above (p. 28) the northern wall of Hindu temples is usually

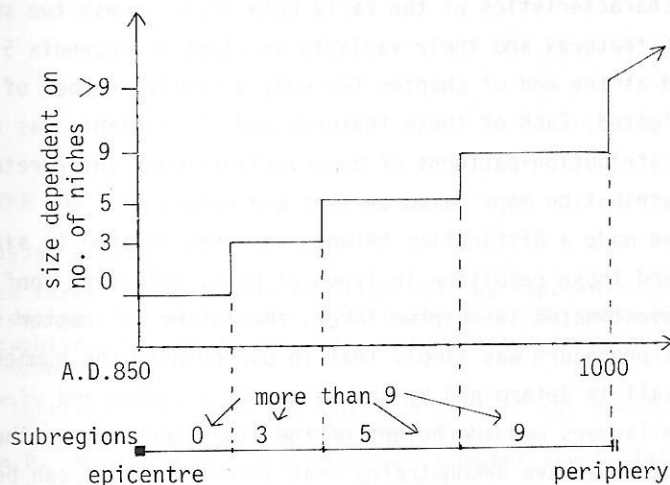


reserved for Brahmā, the western wall for Viṣṇu, whereas the southern wall is occupied by a representation of Śiva. It is, therefore, not surprising that there are several shrines in the Coḷamaṇḍalam which display the most unusual phenomenon of three representations of Śiva in one and the same sanctum, thus occupying the niches normally reserved for Brahmā and Viṣṇu.<sup>32)</sup> It is equally clear that throughout the 10th century the image of Liṅgodbhava<sup>33)</sup> is placed in the "Viṣṇu" niche, either as a replacement of an older sculpture or as an icon contemporary with the shrine.

Furthermore, there are buildings in which Ardhanārī — the concept of Śiva and his consort united in one figure — is found in the western niche, in combination with a Brahmā and Dakṣiṇāmūrti sculpture in the northern and southern devakoṣṭhas respectively — all three images belonging stylistically to the same set of figures. Apart from Brahmā, the majority of shrines in the Coḷamaṇḍalam have Liṅgodbhava, Dakṣiṇāmūrti, Durgā and Gaṇeśa, the latter two on the walls of the ardhamāṇḍapa (p. 28). There are also ardhamāṇḍapas in which other manifestations of Śiva are exclusively displayed. It is only during the reign of Rājarāja I that a revival of Vaiṣṇavism and Jainism becomes evident, for the sister of this ruler had temples built for Śiva, Viṣṇu and the Jina.<sup>34)</sup>

Consequently, we should recognize roughly two stages in the iconographic and artistic development of the temple walls, which indirectly influenced the structural development of the building. In the first phase a gradual expansion of the Śaiva pantheon took place in which the artist could unfold his talents unimpeded by dogmas. In the second stage every Hindu deity, known from the days of the Cālukyas was given a (fixed) place on the walls of the Coḷa temples. In other words between A.D. 850 and A.D. 1000/1014 Śaiva shrines gradually became larger because the temple walls had to accommodate more and more sculptures. After A.D. 1000/1014 we may expect Vaiṣṇava sanctuaries occurring next to Śaiva shrines, their size becoming increasingly larger.

As a result of this the distribution-pattern as indicated on map 6 seems to indicate that the successive phases of Coḷa architecture coincided with an expansion of Śaiva religion. This diffusion process is illustrated in the following graph (p. 31). Diffusion of Śaivism must have reached its physical boundaries about the end of the 10th century. The distribution of buildings with more than nine niches is, therefore, not restricted to a particular subregion. On the contrary, large temples can occur in each of the old subregions. In general, we can say that the distribution of monuments constructed after A.D. 1000 shows a dispersed instead of concentrated pattern.



### 5. Framework of our study

The previous survey, based on geographical principles, was sufficiently promising to continue further research. For, the distribution-patterns of Coḷa temples with regard to their size and height appeared to show subregions which could be dated within, admittedly, rather rough time limits. However, in order to establish the development of Early Coḷa architecture an accurate description of the monuments is required as well as a more specified picture of the time limits in which the variants of the temple features occurred.

Essential temple features to be investigated are — apart from the size and height of the sanctum as well as that of the hall — the temple base, the shape and number of its pilasters, the composition of its cornice as well as that of its superstructure. All these elements vary tremendously. The reason might be two-fold. In the first place, Coḷa architecture probably drew from three different sources, viz. Pallava, Cāḷukya and Early Pāṇḍya, all three occurring in the west area surrounding the Coḷa heartland. In the second place, the Early Coḷa architects were almost certainly highly talented and creative persons who not only learned how to adopt and mix alien ideas or techniques but also found new solutions to problems arising from their own society. The result of this would seem to have been the invention of new variants and new combinations of old variants providing the Coḷa buildings with a typical "Coḷa" appearance.

In order to find our way in the jungle of variants blossoming on almost every monument we decided to start in chapter two with a survey of basic features and variants characteristic of Pallava, Cāḷukya and Early Pāṇḍya architecture. In addition to this, we compiled a complete picture of the current opinions with

regard to the characteristics of the Early Coḷa style. These two surveys resulted in a list of features and their variants as given in appendix 5. For reasons to be discussed at the end of chapter two only a limited number of features was further investigated. Each of these features and its variants was then mapped. Finally, the distribution-patterns of these variants were interpreted and compared with the distribution maps based on size and height.

However, we made a distinction between variants related to size and height of a building and those resulting in types of base, pilaster, roof and corbel. The first we investigated in chapter three, the latter in chapter four. The reason for this procedure was simply that in our opinion the number of pilasters carved on one wall is determined by the height of a vimāna and *vice versa* while the number of pilasters and the height of the vimāna determine the shape of its ground-plan. Since we have demonstrated that size and height can be related to certain subregions and rough time limits, their variants such as the number of pilasters and the shapes of ground-plan may show similar space-time bound characteristics. In chapter three we first explained why this assumption is correct. Then we investigated the monuments, each time as localized objects in a subregion demarcated on the basis of one to four essential variants. In this way we were able to date the temples more accurately than the first rough dating of the subregions earlier on would ever allow. Moreover, we compared our conclusions with those of Balasubrahmanyam, Barrett and Soundara Rajan. The results of this discussion are the dates mentioned in appendices 7-11.

Finally, in chapter four we investigated the essence of the Early Coḷa style. Basing ourselves on the results arrived at in chapter three we substantiated the phases in which the Coḷa shrines showed progressive or regressive variations and combinations of variations with regard to height and size. This was done with the help of an inventory of types of base, pilaster, roof and corbel occurring on the dated and not yet dated monuments discussed in chapter three. The result, viz. the discovery of a development in the individual aspects or combinations of temple parts, turned out to be more far-reaching than could ever have been anticipated at the outset of our inquiry. It could well be used as a base for further historical — and eventually geographical — research on the Coḷas as the Early Coḷa temples are really the only securely datable artefacts of the Early Coḷa period.



# NOTES TO CHAPTER ONE

1. Barrett 1974, p.81.
2. In chapters three and four this practice will be exposed as an incorrect method of dating. See also Dhaky 1971, p.266 note 12, where he stated that epigraphists and historians will better listen to art-historians than *vice versa*.
3. Diffusion theories and models are normally part of any publication on geographical theories. Good examples are, for instance:  
Cox, Kevin R. *Man, Location and Behavior*, chapter five: "Information and Decisions in a Locational Context", pp. 78-99;  
English, Paul Ward e.a. *Man, Space and Environment*, chapter four: "Spatial Diffusion" as part of the Spatial Structure of Human Behavior, pp. 323- 24;  
Ahler, Adams and Gould *Spatial Organisation. The Geographer's View of the World*, chapter eleven: "Spatial Diffusion: Meshing Space and Time", pp. 389- 51;  
Haggett, Peter *Geography: A modern Synthesis*, chapters 14 and 15: "Flows and Networks", pp. 323- 45, and "Spatial Diffusion", pp. 346- 64 respectively.  
Board, Ed. e.a. *Progress in Geography*, Vol. I, chapter four: Diffusion research in geography: a perspective", pp. 119- 57.
4. Modern research in spatial diffusion is mainly interested in the characteristics of the transmitters, carriers and receivers as these are supposed to be crucial factors in the explanation of spreads. However, in our case transmitters and receivers are rather dim historical figures and the speed of the carrier definitely did not change during our period. We, therefore, refrain from summarizing current opinions in this field of study.
5. See glossary. Here definitions are given of all Sanskrit terms used in our text.
6. See for instance SII , XVII, p. iii and no. 227 (A.R. 205 of 1904), p. 83.
7. The inscription in Ranga I, p. 218 no. 779 (376 of 1909) reports that "the villagers of Marudūr sold to Iraiyan kuḍiḱilavan the right of taking water for irrigation...through the sluice of the tank in their village for a specified sum of money". This inscription bears the 22nd regnal year of Maduraikoṇḍa Parakesarivarman, i.e. Parāntaka I. On p. 220 no. 795 (392 of 1909) we read that it is a matter of "...gift of...land situated below the tank called Rājarājappēreṛi,...". This record is dated in the 28th year of Rājarāja I. See also Sastri, 1955, pp. 583- 84.
8. Balasubrahmanyam 1966 p. 81. Here he quotes the Anbil Plates of Sundara Coḷa: "the Indra among kings who had great glory and fortune...by whom the row of large temples of Siva, as it were banners of his own victories, lofty and unacquainted with defeat (collapse), was built of stone on the two banks of the river Kaveri from the Sahya mountains (the Western Ghats), inhabited by the lordly elephants whose cheeks dripped with their temple-juice, in-

cessantly flowing even to the ocean, which has the moon playing on the  
of its big restless waves".

Since special emphasis seems to be laid on the material, it seems in-  
permissible to assume that Āditya I (the Indra) had temples built, con-  
ed of granite, at least along the Kāverī.

- 9). Coḷa temples are either ekatalas or dvitalas — except for a few monuments  
whereas most of the shrines at Paṭṭadkal, Kāñcī, Biccavolu, Nandi and  
samaṅgalam belong either to the tritala or caturtala category (cf. our ap-  
dix 3).
- 10). See Cousens, p. 61, where he reports among others, that the Virūpākṣa te-  
at Paṭṭadkal "was built by the sūtradhārī Guṇḍa...the most eminent sūtra-  
hārī of the southern country". This seems to indicate that king Vikramā-  
ditya II who died ca. A.D. 746, brought the architect to Paṭṭadkal after  
he had conquered Kanci.
- 11). It has been pointed out that the Pāṇḍya artists were far superior to  
the Early Coḷa sthāpatis. However, in our opinion the former did not  
create one structural monument (cf. de Lippe, pp. 159-62, who discusses  
a large group of Pāṇḍya cave-temples but only one structural shrine,  
which was, moreover, not built by them, as we shall demonstrate in the  
next chapter). Consequently, the Coḷas can not have imitated the Pāṇḍyas  
in this respect.
- 12). See Sastri 1955, p. 653. Sastri reports that for the temple at Tañjāvūr  
alone a booty was set aside consisting of among others 500 lbs. of troy  
gold, 10,200 kāsus of jewels to the value of 5,100 kaḷaṅḡus in money,  
50,650 kaḷaṅḡus of silver, i.e. over 600 lbs. of troy silver. Rājarāja  
also reserved land in Ceylon (and other dominions) which should produce  
58,000 kāsus of rice (i.e. in weight 116,000 kalams) and 1,100 kāsus in  
cash.  
1 kaḷaṅḡu = a Tamil coin of 58-60.1 grains (Sastri, p. 613).  
or a Coḷa coin of 72-80 grains.  
1 kāsu = 0.5 kaḷaṅḡu (Sastri, p. 614).
- 13). See Balasubrahmanyam 1966, pp. 161-162, quoting the inscription 286 of  
1911 in which Āditya I is called "... Chola king who over-ran the Tondai-  
nadu and the Conqueror of kings with many elephants ...".  
See Balasubrahmanyam 1971, p. 4, footnote 1. Here Parāntaka I is called  
Kop-Parantaka Madil-Madirai-sidaittu, i.e. destroyer of the fortified cit-  
of Madurai, or just Parantaka Madiraikonda. Another honorific title of  
this monarch was Parāntaka Maduraiyum Ilamum (Ilam = Ceylon).  
See Balasubrahmanyam, id., p. 105. The surname of Parāntaka II - the gr-  
son of Parāntaka I - was among others Sundara, which induced Balasubrahma-  
yam to write that he (Parāntaka II) "...seems to have quite surpassed Co-  
in beauty and therefore received the name Sundara". Furthermore he "...w-  
equal in prowess to the destroyer of the three cities, i.e. Siva...", and  
"...had the quarters filled with heaps of sharp and pointed arrows sent  
forth from his beautiful bow and caused to flow manifold rivers of blood  
springing from the high mountains, i.e. the enemies' elephants cut asunder  
by (his) sharp sword". Sundara Coḷa also fought against "...Vira Pandya"  
was forced to flee and climb the peaks of the Sahyadri Mountains (the Western  
Ghats) for refuge". Therefore Parāntaka II is usually called Parāntaka II  
Madurantaka. Since he "...died in the Golden Palace (Pon Maligai Tunjina  
at Kanchi (p. 106))" - an indication that the empire had again reached its  
borders, lost to the Rāṣṭrakūṭas during the final years of Parāntaka I -  
also became known as Pon Maligai Tunjina Devar.

See Balasubrahmanyam, id., p. 149, where Āditya II - the son of Parāntaka II - is described "...as a lions cub playing sportively with a rutting, mad elephant (i.e. the Vira Pandya) proud of its strength." He assumed the title of Pandiyan talaikonda Parakesari.

149. Sastri 1955, p. 470 assumes the existence of a Department of land-revenue. Balasubrahmanyam 1966, pp. 175-76:  
"(This) central office of control over the whole kingdom was carefully distinguished from the local offices which were accountable to it...".  
"There are...supervisors who were the agents of the central department of control and audit, maintained as a check on the officers of the various departments in each locality".  
In relation to temple affairs Sastri reports on page 471: "The duties of the Revenue officers included...regulating the receipts and expenditures of temples or helping local authorities to do so. They audit the accounts of temples and take steps for the prevention of embezzlement."  
The central government could also come to the aid of local authorities as appears from an inscription of Rājarāja I: "...persons...were slack in the payment of dues assessed upon them by the village authorities... The dispute became a long drawn affair, and the whole subject went up to the king for his decision...". This was "issued by him at his capital, Tañjāvūr, and applicable to the Cōḷa, Toṇḍai and Pāṇḍya countries...". (Sastri, 1955, p. 523).
150. Balasubrahmanyam 1971, p. 213 described this supposed course of affairs in reverse: "While my i.e. Kṛṣṇa III glorious and victorious army is encamped at Melpadi for the purpose of creating livings out of the provinces in the southern region for my dependants, of taking possession of the whole property of the Lords of the provinces, and of erecting temples ...".  
Sastri 1955, p. 653: "He (Rājarāja I) set apart lands in several villages throughout his dominions, including Ceylon, yielding an annual income of 116,000 kalams of paddy...". "...four hundred hetaerae were impressed from among those of the other temples in the country"... were set apart further for the maintenance of as many as 212 menservants comprising dancing masters, musicians, drummers, tailors, goldsmiths, accountants and so on."
151. An example of the difficulties which may arise can be deduced from the following inscriptions: Ranga II, p. 1246 no. 86, 295 of 1908. In this record Tirukkaliṭṭattai is described in the 22nd regnal year of Parakesari, as "...Amaninārāyana, a cāturvēdimaṅgalam, a dēvadāna, a brahmadeya in Vaḍagarai (i.e. the northern bank of the Kāvērī)". At the time of Rājendra I the same village is called Vēmbarrūr, alias Sōḷamārttāṇḍa, a cāturvēdimaṅgalam, a brahmadeya in Maṇṇināḍu, a subdivision of Vaḍagarai-Rājendra-simha-Valanāḍu. See also SII, Vol. XII 1943, Appendix C: "Important Geographical Divisions mentioned in the inscriptions", pp. 174-179; and further Sastri 1955, p. 465.
152. Balasubrahmanyam 1971, p. 216 reports that Parāntaka built a memorial sepulchral temple over the ashes of Āditya I, and on p. 214 that Rājarāja I established the Ariṅṅigai Isvarattu Mahadevar some time before his 29th regnal year (A.D. 1014) "as a pallippadai ... where the mortal remains of Ariṅṅigai devar were buried".
153. The publication by Sivaramamurti 1961, on Kalugumalai and other Early Pāṇḍya rock-cut shrines was the only source of information for more than ten years. It was complemented by K.R. Srinivasan only in 1971 and by deLippe in 1978.



- 19). This becomes manifest when we see how they either married off their daughters to each other, or - in a less peaceful way - fought their battles on each other's territory (see Sastri 1966, p. 174, the battle of Idavai, on the north bank of the Kaverī, between Vijayālaya and the Pāṇḍya king Varagunaṣarman; p. 175, the battle at Śrīpuṇambyam near Kumbakonam between Āditya I and the Pallava ruler Aparāṇḍita and his Gaṅga vassal Prithvīpati I; p. 176, the battle of Veḷḷūr south of the Vaigai between Parāntaka I and the Pāṇḍya monarch Māravarman Rājasimha II whose ally was the Ceylonese ruler Kassapa V; pp. 179-180, two battles in which Sundara Coḷa recovered the lost provinces from the mighty (=Vira) Pāṇḍya; p. 180, the invasion of Ceylon by Parāntaka II and the destruction of Anurādhapura by Rājarāja I).
- 20). See Sastri 1955, p. 112; Dhaky 1971, p. 264.
- 21). Sastri 1955, pp. 131- 34. On this occasion Kṛṣṇa III received the title of Taṇjaiyum-Koṇḍa.
- 22). "Many of these agrahāras of mangalams were created by royal grants. Faith in the unique merit of the gift of land (bhū-dāna) was very common. Thus it came about that new colonies of pious and learned Brahmins were settled in different parts of the country and gained control of local affairs through the Sabhā and its executive." Sastri 1955, pp. 492-493. The merchant guilds controlled - at a certain stage - the activities of artisans (Soundara 1978, p. 17).
- 23). See Balasubrahmanyam 1971, pp. 173-74.
- 24). For a short summary see also Sastri 1966, pp. 173- 86.
- 25). Sastri 1955, pp. 157-159. Here Sastri describes the very dubious role of Uttama Coḷa with regard to the murder of Āditya II. The inscriptions mentioning this affair have been kept vague on purpose: "The Tiruvalangadu plates seem to gloss over the story on purpose." The empire was in pieces. Kṛṣṇa III possessed Tonḍaimaṇḍalam, South Arcot was in the hands of the feudatory Siddhavaḍavan (this is Narasimhavarman, chief of Mīlāḍa)" (see p. 151). The Pāṇḍyas, on the other hand, held their own (see p. 156).
- 26). Balasubrahmanyam 1966, p. 23-34; and Sastri 1955, pp. 131- 34.
- 27). The numerous inscriptions which report a "gift of land", the profit of which had to serve for the maintenance of brahmins, the daily burning of an oil-lamp in the temple etc., show that the shrines must have obtained immense property in the course of centuries. An example of such a record is 247 of 1911 (Ranga II, p. 1239 no. 49), where it is reported that in the 4th regnal year of Parakesari, a merchant from Nandipuram donated land to the temple for feeding a brahmin.
- 28). Kramrisch, 1946, pp. 135-137, 143.
- 29). Sastri 1955, pp. 635-643, cf. Soundara 1978, pp. 159-161, Fig. 5 at the end of the book. In South India the period between the 7th-9th centuries is characterized by a nebulous stage of polytheism in form and syncretism in thought (Soundara 1978, p. 47). The following development of religious Hindu doctrines and their corresponding iconography might be applicable to this part of India, although it should be realized that nothing is known about its impact on the people. Until the 7th century the Śiva-Maheśvara cult was *en vogue*, including iconographical concepts such as Dakṣiṇāmūrti (southern variant of Lakulīśa), Liṅgodbhava (=Agni Rudra) (Soundara 1978, pp. 38-40). During the 7th-8th centuries Viṣṇu and



Śiva were of equal status. There was a recession of Brahmā, whereas Gopeśa, Durgā and Kārttikeya or Subrahmanya were included in the pantheon as subsidiary deities (Idem, p. 40). During the 9th century parivāradevatās including the Saptmātrkās became "popular" (Idem, p. 40). The Viṣṇu cult (8th-9th centuries) was non-polemical and non-sectarian. Durgā (Viṣṇu-Māyā or as Mahiṣāsuramardinī). Hari-Hara and Nārāyaṇa were often depicted (Idem, pp. 42-43). The Nāṭarāja cult stems from the days of Parāntaka I (Idem, p. 41).

100. The early Čālukyas (of Bādāmī) were of the Vaiṣṇava persuasion (de Lippe 1978, p. 133). They constructed numerous Vaiṣṇava sanctuaries next to relatively few Brahmanical and Śaiva monuments (Mahākut, Paṭṭadkal). The iconographical representations of Śiva and his consort - as preferred by the Čoḷas - were one way or the other depicted in Čālukya shrines at Aihole, the caves at Bādāmī and the large structural buildings at Paṭṭadkal. The first Pallava king was Siṃhaviṣṇu, his son a convert from Jainism. In the 7th century Kāñcī was a centre of Jainism, Buddhism and Brahmanical learning (de Lippe, p. 148). The Pallavas created in equal measure sanctuaries for Viṣṇu and Śiva throughout their vast empire. The early Pāṇḍyas (of Madurai) were tolerant towards Buddhism and Jainism. Their cave temples are dedicated to Śiva and the Jina, although there are a few Vaiṣṇava sanctuaries. It is interesting to note that pre-Aryan deities survived and were identified with Durgā and Subrahmanya or Kārttikeya (de Lippe, p. 159).

101. Vaiṣṇava caves nos. 1 and 3 at Bādāmī; the Piravātaneśvara at Kāñcī, the Shore Temple at Māmallapuram.

102. Cf. Soundara 1978, p. 112, de Lippe, pp. 171- 72.

103. Liṅgodbhava is the manifestation of Śiva in the form of a gigantic liṅga from which an anthropomorphic Śiva looks at the observer through a vertical opening. The theriomorphic representations of Brahmā and Viṣṇu are very small in proportion both to the liṅga and to Śiva and seem to float somewhat helplessly around the liṅga. In this context the liṅga also represents the world and the universe over which Śiva established his supremacy.

104. Nājarāja I's sister Kundavai had temples built for Śiva, Viṣṇu and the Jina at Dadapuram c. A.D. 1006. See also Soundara Rajan 1978, pp. 28-37, 40.



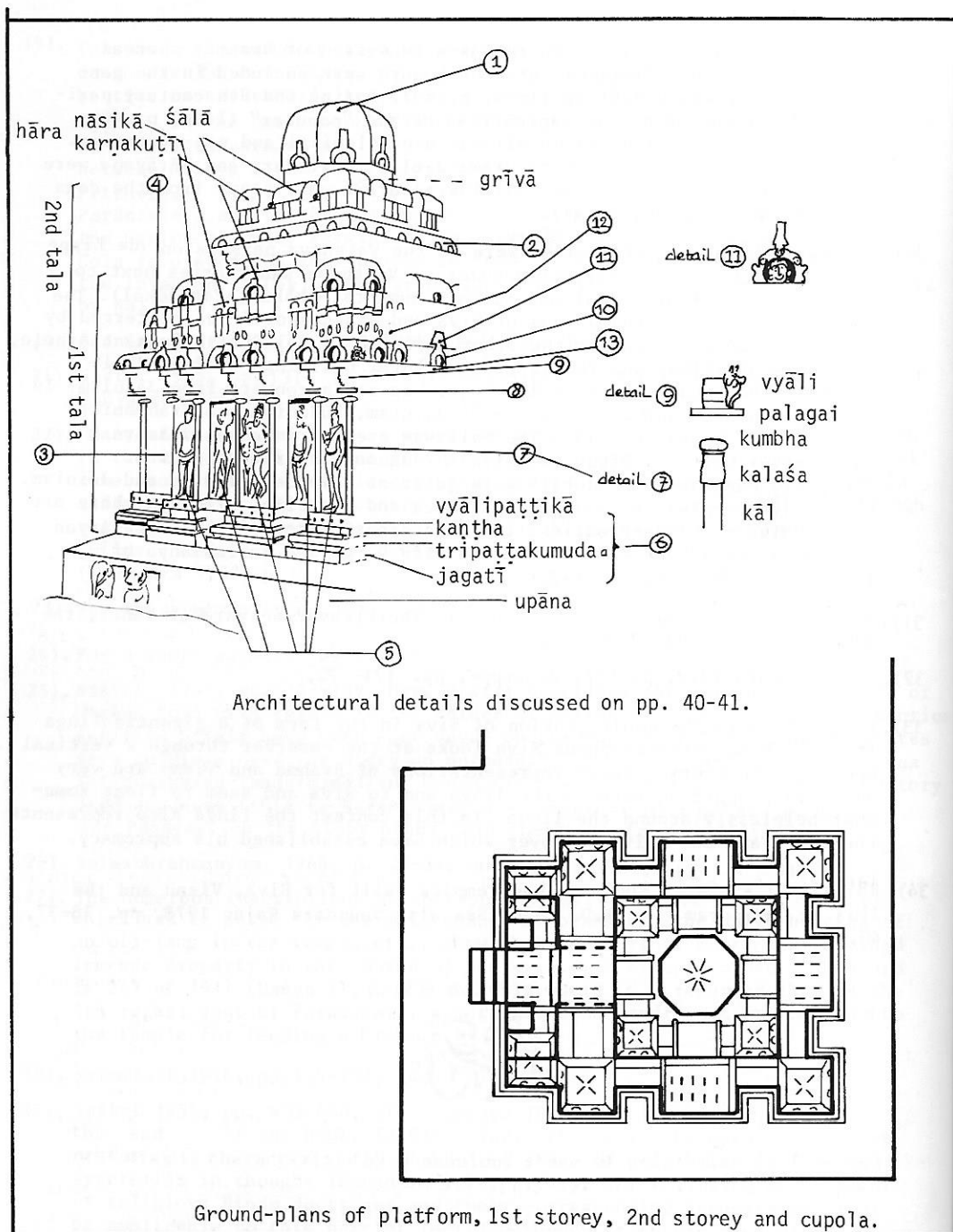


Fig. 2. Arjuna Ratha, Mamallapuram. Architectural details and ground-plans.

## Chapter two

### The Early Coḷa style : a product of a marriage à trois ?

#### 1. Characteristics of pre-Coḷa architecture

##### 1.1.Characteritics of Pallava architecture.

For good reasons Pallava architecture has attracted a great deal of attention. Time and again it is surprising to discover that the Pallavas produced such a multitude of new artistic ideas in a rather isolated area, off the main stream. Since most of their monuments are cave-temples and rock-reliefs, nearly all publications deal with the sculptural aspects of the Pallava style. However, they also designed free standing shrines. Being more excavators (of caves) and sculptors than architects they used some immense granite boulders for experiments with the shapes of their structural shrines-to-be. Although scholars from all over the world were and still are fascinated by these rather unusual examples of "architecture"<sup>1)</sup>, and perhaps even more impressed by the two huge structural temples at Kāñcī — the capital of the Pallavas — built of a yellowish sandstone, the published descriptions of these monuments are hardly suitable for our purpose, the emphasis being entirely on either their sculptures or their history. We, on the contrary, are more interested in the shape of the buildings and the way in which their individual components were designed. Consequently, it seemed necessary to review as accurately as possible some examples of minor Pallava temples of the same size as the Coḷa shrines. For this purpose we selected two small koyils, in the first place the Arjuna Ratha, a rock-cut monolith at Māmallapuram, hewn out in the early 7th century and secondly an example of a structural shrine called the Piravātaneśvara, made of sandstone and partly standing on a granite base in the outskirts of Kāñcī. It was built between A.D. 700 and 728.<sup>2)</sup>

In order to cover the entire Pallava

period we decided to include in our survey the Shore temple at Māmallapuram and the Kailāsanātha at Uttaramallūr. Moreover, each distinctive phase in Pallava architecture is, among others, represented in appendix 3.

*The Arjuna Ratha* (Pl. 1, Fig. 2).

This wonderful small monument was chosen because its ground-plan is similar to that of many Coja temples. The other monoliths at Māmallapuram have ground-plans which are not found anywhere else in South India, except for the Sahadeva Ratha, which has an apsidal layout. The Arjuna Ratha has the following characteristics:<sup>3)</sup>

1. an octagonal sikhara;
2. a grīvā-platform supporting — apart from the śikhara — a hāra consisting of four śālās, and four karṇakuṭīs and double nāsikās in between these aedicules;<sup>4)</sup>
3. an ardhamandapa with an open front and with side-walls without niches or any other form of decoration;
4. a hāra extending over the ardhamandapa;
5. five mock-niches per vimāna wall. The term mock-niche is used here because the niche-pilasters are missing, as is the makaratoraṇa. The Draupadī Ratha next to the Arjuna Ratha, on the other hand, does show the makaratoraṇa. This indicates that the Pallavas were familiar with this type of ornament (cf. Pl. 3) as early as the 7th century (cf. Pl. 3);
6. an adhiṣṭhāna resting on an upāna-platform and consisting of a jagatī, tripaṭṭa kumuda, a narrow kaṇṭha and a paṭṭikā, which — judging from the holes under the three protruding parts of the vimāna wall — were probably decorated with loose vyālis;<sup>5)</sup>
7. very slender, bevelled pilasters with a clearly observable kalaśa — although the padmabandha is lacking — topped by a kumbha;
8. a palagai which is rather wide when compared with the pilaster;
9. rearing vyālis on top of the palagai flanking so-called roll podigais;
10. a kapota which slants down rather steeply, while its corners are decorated with koḍikkarukkus;
11. horseshoe-shaped kūdus on this cornice crowned with a shovel-like top and framing smiling faces;
12. a vyālivari above the kapota. These mythological animals are located in functional places, although they give the impression of being strung in rows, due to the small but regular distances between the floor-joints visible under the pilasters of the kuṭīs and śālās. In the Nakula Sahadeva Ratha these joints were never finished, so the gradual process from

joint to vyāli can indeed be assumed;<sup>6)</sup>

13. a frieze of bhūtagaṇas under the kapota;

14. a ground-plan consisting of three protruding parts and two recesses per wall;

15. an ardhamāṇḍapa which is narrower than the vimāna and directly connected to it.

#### *The Piravātaneśvara (Pl. 2).*

In broad outlines this structural building is similar to the Arjuna Ratha. However, the perfection with which the craftsmen sculptured the Arjuna Ratha has disappeared during the intermediate century. Especially the pilasters of the Piravātaneśvara are inelegant blocks. Possibly the immense work on the two great temples of Kāñcī had skimmed the potential of craftsmen so that for the less important shrines only the less skilled artisans or merely the apprentices were available. On comparing the Piravātaneśvara with the Arjuna Ratha the following differences can be noted:

1. there are mock-niches formed by means of two pilasters. The wall between these two pilasters automatically becomes a "niche" (cf. Pl. 1 and Pls. 2-3);
2. a lintel is suspended between the two pilasters;
3. an amakatorāṇa has been squeezed in between the lintel and the uttira which has no bhūtagaṇas;
4. the palagai is substituted by a kumbha in a triangularly shaped block which widens into the pilaster;
5. the kāls on the corners are supported by rearing vyālis;
6. dvārapālas and worshippers are depicted between the pilasters;
7. on the walls of the ardhamāṇḍapa mock-niches are carved out;
8. the grīvā-platform has no kaṇṇakuṭṭis.

#### *The Shore Temple at Māmallapuram (Pl. 4).<sup>7)</sup>*

This shrine provides a few more interesting details deviating from the monuments discussed above. It was built between A.D. 700 and 728 of a coarse, grained granite which erodes easily. The adhiṣṭhāna consists of several elements: a padma moulding instead of a jagatī, a tripaṭṭa kumuda, a kaṇṭha with a vyālivari, a second kaṇṭha with a lotus-vari over it.<sup>8)</sup> The vyālis on the prastara are placed in rows and at a small distance identical to that between the vyālis of the kuṭṭis and śālas of the hāra. The grīvā-platform has four seated gaṇas instead of a hāra. The kapota shows circles along the bottom-edge.

#### *The Kailāśanātha at Uttaramallūr (appendix 3, no. 6).*

This monument is the last representative of the Pallava style<sup>9)</sup>. It is curious for

three reasons, viz. the decoration of the base is kept to the minimum, the pilasters are plain and the mock-niches have developed into a kind of real deva-koṣṭha with half-size niche pilasters and a lintel which is raised slightly over the palagais. The monuments at Kambadahalli, Narasamangalam and Nandi display some features which point to Pallava influence. Although they are located in the Western Gaṅga tracts to the northwest of the Coḷamaṇḍalam, we have included them in appendix 3.

### 1.2. Characteristics of Cāḷukya architecture.

In dealing with Pallava and Cāḷukya monuments, Soundara Rajan stated that the Cāḷukya style may be described as an "elemental emotion, soft and sensuous modelling and a graceful combination of apparel and jewellery". The Pallava style on the other hand, stands out as "more sedate, of compressed modelling and with sparse drapery (where outlines alone are emphasised) and ornamentation".<sup>10)</sup> Furthermore he remarked that the "supple sandstone" (available in large amounts in Karnataka) and the "grim granite" (of Māmallapuram) played a decisive part in those styles, as did the "local ethos".<sup>11)</sup>

Apart from the fact that these words present a very personal and ethical opinion, one wonders where these emotions and this modelling originated. Soundara Rajan did not go into this and only mentioned a number of partly architectural, partly sculptural features and innovations, typical for Western and Eastern Cāḷukya architecture (Pls. 5-9). They are:

1. the Western Cāḷukya temples often have a so-called sloping roof. This feature can be explained from climatological circumstances, i.e. heavy rainfall;<sup>12)</sup>
2. nearly all monuments have trellised windows consisting of sandstone slabs placed in the first tala of the double-walled sāndhāra temples in order to transmit light. These beautiful windows were imitated by the Bāṇas, the Western Gaṅgas and the Eastern Cāḷukyas in their later buildings;<sup>13)</sup>
3. vyālivaris as prastaras have been placed above kapotas;
4. some monuments show a śukanāsa projecting in front of the superstructure. This idea was not copied by the Eastern Cāḷukyas;
5. there is an obvious preference for the simple, vertically slanting padma-course instead of a rectangular jagatī;
6. a kapota is used as the top-layer of the adhiṣṭhāna instead of a paṭṭikā which occupies this place in Pallava, Coḷa and Pāṇḍya architecture.<sup>14)</sup>
7. square līṅga-piṭhās are preferred. Among the Rāṣṭrakūṭas — ruling in the same area after the collapse of the Cāḷukya empire — they were round and we meet these again in the Śiva kōyils of the Muttaraiyars, the Irukkuvels, the

- Colas and the Pallavas. The Eastern Cālukyas and the Pāṇḍyas continued to erect square līṅgaṭṭhās;<sup>15)</sup>
8. the vimānas are mainly of the Nāgara variety; with this Soundara Rajan means that the śikharas have a square ground-plan.<sup>16)</sup> This layout is again dominant in the region of the Irukkuvels and in the northern Pāṇḍya zone;
  9. the talas of the superstructure are of the arpita variety, i.e. the hāra is attached to the tala walls and not — as with the Pallavas — separated from it (anarpita) so that the pradakṣiṇa could be performed;<sup>17)</sup>
  10. among the sculptures on these temples, the mithunas form the largest category;<sup>18)</sup>
  11. the icons were carved out *in situ* in stone blocks meant for that purpose.<sup>19)</sup> This is illustrated by the unfinished walls of the Sangameśvara (Pl. 7). There was obviously insufficient time or money to carve the rough blocked-out surfaces into images, as was done on the walls of the Virūpākṣa temple at Paṭṭadkaḷ (Pl. 5);
  12. in the Western Cālukya temples the parivāradevatās are lacking with the sole exception of the Virūpākṣa shrine;<sup>20)</sup>
  13. the lintels of the doorframes are striking on account of their elegant ornamentation and friezes. The Pallava lintel, on the other hand, is plain;<sup>21)</sup>
  14. until the Rājasimha period, Gaṇeśa images are unknown in the Pallava area, whereas they are indeed frequent in both the Western Cālukya and the Pāṇḍya temples.<sup>22)</sup>

Especially aspects 2, 3, 6 and 13 are purely individualistic contributions of sculptors trained for centuries in shaping the interior of cave-temples and monasteries. So they were ahead of the architects, who had to design and build a structural temple for the first time. Soundara Rajan here used the nice image of turning the cave temples inside out.<sup>23)</sup> The inside lining becomes, so to say, the proper, outer side. The sculptor could continue his work in the open air while the material remained the same. Not only "elemental emotions" spurring the sculptor on to creating continually new decorative elements, his training in working the "supple sandstone" which had lasted for centuries did so in equal measure. However, this does not change the fact that the Western Cālukya temples and their images are indeed more elaborately decorated with ornaments than those of the Pallavas. According to Cousens Cālukya art can be described as "An exuberance of lace-like carvings, ... all elbowing each other for room".<sup>24)</sup> Even better than in words, he demonstrated the characteristics of Western Cālukya shrines by means of excellent engravings. One example is that of the plinth of the Mālegiṭṭi at Bādāmī.<sup>25)</sup> This shrine could well be the



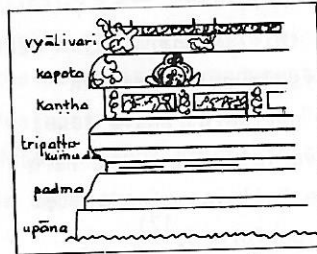


Fig. 3 Mālegitti Śivālaya, Bādāmī. Detail of plinth.

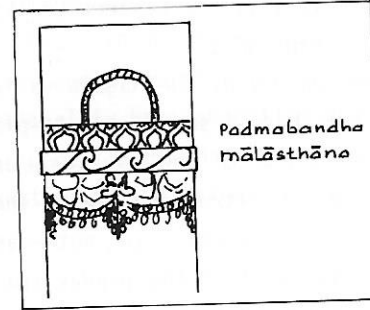


Fig. 4 Lād Khān, Aihole. Detail of pillar.

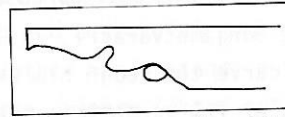


Fig. 5 Lād Khān, Aihole. Detail of podigai.

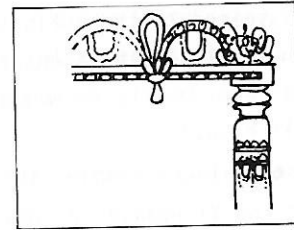


Fig. 6 Mālegitti Śivālaya, Bādāmī. Detail of makaratoraṇa.

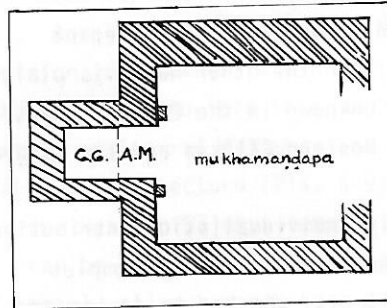


Fig. 7 Ground-plan of a Cālukya temple showing garbhagrha (GG), ardhamandapa (AM) and mukhamandapa.

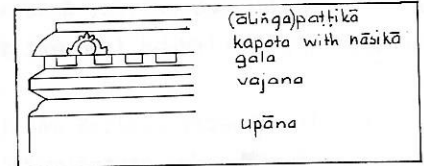


Fig. 8 Rājarājeśvara, Biccavolu. Detail of adhiṣṭhāna.

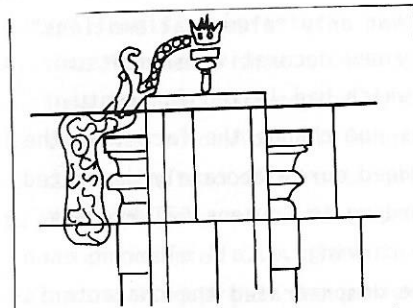


Fig. 9 Rājarājeśvara, Biccavolu. Detail of niche and makaratoraṇa.

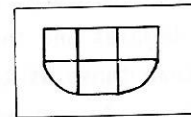


Fig. 10 Rājarājeśvara, Biccavolu. Podigai.

earliest to be constructed by the Cālukyas in this area (Pls. 8-9). Stylistically, this building resembles the Meguti at Aihole and the monuments at Māmallapuram, but the Cālukya buildings give the impression of being older. An inscription *in situ* tells us that the Meguti was raised in A.D. 634. It may be assumed that the Mālegiṭṭi dates from about the same period.<sup>26)</sup>

Fig. 3 illustrates the typical Cālukya curves on the jagatī (padma) and the kumuda, the "straight" profile of which is slightly rounded; they show the regular spacing of the vyālis and the ornamentation of the kapota and the kaṇṭha as well as the beautifully carved padmabandha and mālāsthāna on the otherwise massive pillar.<sup>27)</sup> The Western Cālukya podigai (Fig. 5) is characterized by an uneven, rather complex roll-pattern. We shall meet "translations" of all these typical Cālukya features on many Early Coḷa monuments.

The Cālukyas did not incorporate a makaratoraṇa in the design of a niche, for this ornament was applied in many other places on the walls of their temples, for instance above the trellised windows and on the connection between the garbhagrha and the ardhamandapa. Moreover, it is normally placed on a lintel with a padmavari which seems to be thrust into the palagai (Fig. 6).<sup>28)</sup>

An ardhamandapa - part of every Coḷa temple - can hardly be noticed in the Cālukya shrines, at least not from the outside. When present, this porch merely consists of the thick walls of the square, large mukhamandapa which are linked up directly with the garbhagrha (Fig. 7). These walls, often one metre thick, are in fact the side-walls of the interior of the ardhamandapa. Consequently, the porch itself is not a separate structural part of the building.

One particular aspect of Cālukya architecture which was not noticed by either Cousens or Soundara Rajan, is mentioned by Srinivasan.<sup>29)</sup> It concerns the phenomenon that not only the hāra runs along the first tala of both the vimāna and the mukhamandapa, but that in addition to this kaṇṭakuṭṭis may occur on the upper tala. The śikhara is of the Drāviḍa type, i.e. octagonal. At a later stage Cālukya shrines were adorned with vāhanas instead of these kaṇṭakuṭṭis. The typical corner shrines can be seen among others on the Mālegiṭṭi at Bādāmī (Pl. 8). Another characteristic of these Early Cālukya monuments is "the insertion of two side-shrines in the ardhamandapa...dedicated to Durgā and Gaṇapati."<sup>30)</sup>

Finally, we quote Brown who mentioned as important characteristics of an order in the architectural sense: "...the shape of the tower, ...the general formation of the structure, ...the shrine-like niches on its walls".<sup>31)</sup> The

Drāviḍa order, to which the Cāḷukya style belongs, furthermore distinguishes itself primarily from the Nāgara, or Indo-Aryan order, through the existence of a kind of canopy adapted from a single caitya-arch motif, as illustrated on the Virūpākṣa temple (cf. Pls. 1 and 5). A second feature of this order is "...a narrowing or constricting of the upper end of the shaft where it joins on to the capital".<sup>32)</sup>

Nothing is known about architectural developments in the Eastern Cāḷukya territory, until about the second half of the 9th century. Contemporary with the Early Coḷa monuments some shrines were constructed at Biccavolu — tentatively dated between A.D. 850 and 950 (Pls. 10-16).<sup>33)</sup> So far they have received insufficient attention. We can at best refer to the publications by Rao and Rajendra Prasad. However, their terminology differs from that used by other scholars which occasionally makes it difficult to compare their descriptions with that of the Western Cāḷukya monuments. Beginning with the Rājarājeśvara at Biccavolu (Pls. 12-13), it appears that:

1. its adhiṣṭhāna consists of an upāna, a vajana and a gala cut into compartments by short rafters, a kapota adorned with nāsikās over each pilaster of the gala below and an āliṅgapatṭikā (Fig. 8);
2. Gaṇeśa, Kumāra and Kuvera are placed on the walls;
3. the pilasters are capped with a simple, plain bracket capital (Fig. 10);
4. over these extends a bhūtamālā;
5. a kapota with śimhamalatā gables crowns the walls;
6. two side-walls project from the eastern wall, containing (on the outside) a semi-makaratorāṇa (Fig. 9) often with riders on the neck of each makara;
7. a vyāli frieze runs over the kapota of this ardhamāṇḍapa;
8. there is a row of kuṭṭīs, śālās and pañjaras built over both the kapota of the vimāna and the ardhamāṇḍapa;
9. the sanctum carries a Nāgara śikhara with a śimhamalatā on each side;
10. between the kalaśa and the śikhara a double row of lotus petals is carved.

The Goliṅgeśvara is in almost every respect identical to the Rājarājeśvara (Pl. 16). The plinth of this temple has an extra patṭa and gala, but, on the other hand, lacks a kapota. Each wall is adorned with five niches; the central one is decorated with a makaratorāṇa.

When comparing the Eastern with the Western Cāḷukya monuments (Pls. 5-16) we notice that in the eastern regions the ardhamāṇḍapas protrude considerably more while the makaratorāṇas are hanging somewhere on the walls unsupported by niche-pilasters or lintels. Actually, there is a sort of decorative

picture-frame instead of a niche. Over this the makaras are suspended (Fig. 9, Pls.13,14,16). Furthermore it should be noted that the podigai curves without any decoration or throating (Fig.10).

Summarizing, the following features of Western and Eastern Cāḷukya architecture can be mentioned:

1. a sloping roof;
2. trellised windows;
3. vyālivari and prastara;
4. śukanāsa ;
5. padma instead of jagatī;
6. kapota instead of a paṭṭikā;
7. a square liṅga;
8. a square śikhara;
9. a hāra anarpita;
10. stone, bracket-like slabs showing mithunas;
11. icons as part of the blocks with which the temple was constructed;
12. no parivāradevatās;
13. lintels over niches, but only in the Western Cāḷukya monuments;
14. Gaṇeśa as a permanent image in the southern wall of the ardhamandapa;
15. an adhiṣṭhāna consisting of upāna, padma, tripaṭṭa kumuda, kaṇṭha, kapota, kaṇṭha and vyālivari;
16. an involuted roll podigai in the West and a smooth, round roll podigai in the East;
17. a mālāsthāna in the West only;
18. makaratorṇas framing niches in the East only;
19. an embryonic ardhamandapa in the West, a small ardhamandapa in the East;
20. karṇakuṭīs on the uppermost tala;
21. a canopy over the niches in later Western Cāḷukya shrines, and
22. a narrowing kāl directly under the cushion capital (kumbha).

### 13. Characteristics of Early Pāṇḍya architecture.

Until now, not *one* example of a structural Pāṇḍya temple has been discovered at least not of the period preceding the Coḷas. Therefore, it seems unrealistic trying to discover an "Early Pāṇḍya" structural style. The only information we can use is the description of the unfinished monolithic temple at Kaḷugumalai, the exquisite śikhara of which is assumed to have been sculptured before A.D. 800, i.e. before the Coḷas came to power. Referring the reader to the illustrations in

several publications <sup>34)</sup> we see that the following features can be noticed:

1. the śikhara is octagonal;
2. there are nandis on the grīvā-platform;
3. both the śikhara and the kapota have bell-shaped profiles;
4. the kūḍus are large and wide-open, crowned with a splendid śiṃhamukha within a shovel-like ornament;
5. inside the kūḍu-frame appear smiling faces or gable-ends;
6. circles — usually placed along the bottom-end of the kapota — alternate with small squares a few centimetres above the cornice;
7. over the kapota runs a vyālivari. The position of the vyālis does not indicate the outer ends of the floor-joints. Their presence is, therefore, purely decorative;
8. the grīvā-platform is supported by small elephants;
9. under the kapota runs a varying and elegant bhūtagana frieze;
10. the grīvā rests on a floor of which the rim is decorated with lotus-petals and supported by a kaṇṭha with panels;
11. each pilaster has a clear bandha constricting its upper part into a bulbous kalaśa;
12. the palagai is narrow;
13. the hāra represents the anarpita type, at least in its present unfinished state;
14. the koḍikkarukku decorations are exuberant.

Most of the enumerated characteristics in this list occur already in the Cālukya temples, but three features attract our attention as they seem typical Early Pāṇḍya contributions to the architecture of South India. These are the profile of both the śikhara and the kapota, the unusual place of the bandha on the kapota where, in addition, circles alternate with squares, and, lastly, a purely decorative vyālivari disconnected from its original function.

Our statement about the non-existence of Early Pāṇḍya structural monuments would seem to be contradicted by Soundara Rajan who believed that almost all Early Coḷa shrines were built by the Pāṇḍyas and their vassals. Since his opinion is highly unorthodox and, moreover, may seem to undermine our thesis we have to go into his theories in more detail.

#### *1.3.1. The views of Soundara Rajan.*

In his publication on Early Pāṇḍya, Muttaraiyar and Irukkuveḷ architecture, Soundara Rajan tried to reshuffle the hitherto accepted views by propounding two dissenting theories.<sup>35)</sup> For us, the most important of these is his denial

of the existence of an Early Coḷa style, at least in the period in which it has normally been assumed to have flourished. In the second place he denied that either Pallava or Cāḷukya influence has been of any importance in the architectural development of the deep South. In his view, the only creative force in this area came from the Pāṇḍyas and their vassals: the Muttaraiyar and the Irukkuvel chieftains. However, these ideas are not convincing since the arguments are either incorrect or lacking altogether. First of all we shall deal with the wrong preconception regarding to absence of any cultural influence from outside the Pāṇḍya area. Then we shall show that it is impossible to maintain that the Pāṇḍyas must have been the only source of inspiration. Thirdly, we shall explain why the Early Coḷas could build temples in the regions conquered from their neighbours, and finally, we shall show that all Soundara Rajan's criteria appear to be unsound, since they are either applicable to all monuments or irrelevant to the shrines to which he applied them.

When Soundara Rajan wondered "Why then did the Pallavas avoid a wider use of granite?" he stated that it must have been due to the fact that their workmen found it hard to quarry the granite.<sup>36)</sup> However, we do not share his amazement, for in the first place the Pallava artists were not only able to excavate impressive cave-temple complexes from granite boulders, but also to sculpture granite outcrops into architectural jewels and to erect seven structural shrines of granite of which the Shore temple at Māmallapuram is unfortunately the only remaining one. Secondly, there does not seem to be an essential difference between quarrying blocks of granite which are subsequently transported from the quarry to a building-site farther off and carve blocks of granite from the cave-temple to be. In other words, in both cases the problem is the same: the granite blocks have to be transported either from a quarry to a building-site, or from a building-site (i.e. the granite outcrop in which the caves were carved) to a place where the waste had to be dumped. It is therefore evident that the Pallavas did participate in the granite technique, for they are particularly famous for their granite monuments. Moreover, it cannot be assumed that structural temples were created only after A.D. 900, since the seven buildings on the shore were erected some two hundred years earlier.<sup>37)</sup> Another reason why the Pallavas could not have been a source of inspiration to the architecture in the Deep South of ca. A.D. 900 is the fact that they were a spent force by the last quarter of the 9th century and therefore unable to influence the architects of the Pāṇḍyas and the Early Coḷas when they began to erect shrines.<sup>38)</sup> We admit that there is a time-lag of at least one century between the most glorious period of the Pallava architecture



and the first koyils designed by the architects of Āditya I. However, continuity is not always a necessary prerequisite for the development of a particular style. To cite an example of discontinuity in Europe: the architecture of the Renaissance was inspired by examples of more than 1,500 years ago! To eliminate the Pallava style as a source of inspiration seems, therefore, out of bounds. To eliminate Cāḷukya influence by stating that this culture was based on "soft" rock, is amazing.<sup>39)</sup> A style is not only determined by its technique and or material, but also by the shape of certain elements which are part of each and every temple, wherever it was built. Take, for instance, the kūdu, which is found throughout India. It was carved out either in soft stone or in granite, simply because it had to be present. Why then did the Pāṇḍya architects select the Cāḷukya trefoil as crowning element on their kūdus instead of the Pallava shovel? Certainly not because the "soft" stone trefoil was easier to carve than its granite counter-part.

As Soundara Rajan eliminated these two sources of inspiration he had to find a substitute. According to him the Pāṇḍya cave-cutters were better prepared to design the layouts of a structural temple, because they could excavate so well.<sup>40)</sup> It seems to us, however, that the design and the construction of a cave-temple cannot be compared with those of a structural shrine. To mention some differences: basically, a structural temple has a square ground-plan which often becomes rather complicated when protruding parts are included creating as it were recessed wall-spaces. On the other hand, a cave is usually rectangular. Again, a cave normally has no ardhamaṇḍapa which is indispensable in a structural temple. The manner in which this element had to be connected with the temple was a problem for which different solutions were devised during the Early Coḷa period. A structural shrine has outer walls with pilasters, niches, makaratorāṇas and sometimes even pañjaras. The Pāṇḍya caves, however, show none of these elements. Consequently, the Pāṇḍya caves are crude in comparison with the beautifully decorated Cāḷukya caves, famous among others for their richness of sculptural and ornamental details. Soundara Rajan's remark that the Pāṇḍyas were fond of using parivārālayas — an argument which should prove their expertise in structural design — is not very convincing either.<sup>41)</sup> These parivārālayas never exceeded the simple, rudimentary form of a plain square, nor did their first tala ever rise higher than the shoulders of an, admittedly, full-grown person. How these stark architectural designs without any decoration and without devakoṣṭhas could have been the inspiration for the very complicated and beautifully decorated Early Coḷa temples is again beyond our comprehension.



Finally, Soundara Rajan stated that "In a similar way [i.e. by way of cross references] the Irukkuvels (ruling from Koḍumbāḷūr) had also started building structural temples..."<sup>42)</sup> We would, however, have appreciated to share these references with him, because, the date of the Muvar Kōyil at Koḍumbāḷūr is disputed. It seems imprudent to ignore this controversy by simply stating that the building dates from ca. A.D. 875, while Balasubrahmanyam and Barrett agree that it was constructed around A.D. 950.<sup>43)</sup>

Soundara Rajan's refusal to accept that the Coḷas designed stone kōyils is based on his assumption that they made use exclusively of stucco and brick till the end of the 9th century, as they were apparently farmers in the Kāverī delta.<sup>44)</sup> However, their original home was Uraiyūr, probably located near the town of Tiruchirappalli and in that case near granite quarries.<sup>45)</sup> Soundara Rajan is right, however, in stating that the Coḷas never possessed the plateau country until the end of the 9th century,<sup>46)</sup> but they surely did not need the vast amount of granite of these plateaus for the construction of their rather small, granite temples. In the delta, heart of the Early Coḷa territory, stone cannot have been scarce, since it is surrounded by granite outcrops on its northern and western flanks. This is less than an elephant's hour walking distance from the Coḷa capital. In view of the enormous distances covered by the elephants of Āditya I and Parāntaka I during their campaigns, distance cannot possibly have been a limiting factor in transporting granite blocks.

From the absence of founding-dates on the shrines which were presumably erected by Āditya I, Soundara Rajan concluded that these buildings cannot have been constructed by him.<sup>47)</sup> This is indeed a very poor argument, for in the first place, the only proper conclusion in such a case is that it is uncertain who built the kōyil. To exclude Āditya I from all the possible founders seems unwarranted. Secondly, it was not customary to retain for posterity information regarding the year of the abhiṣeka of a temple and the name of its founder. Of all the more than 200 monuments visited during our field work, only about twenty had this type of information engraved on their walls. If, apparently, it was not customary, why use it as an argument against Āditya I? According to Soundara Rajan Āditya I could not possibly have had time to build any shrines as he had to defend his new frontier way up north between A.D. 890 and 897.<sup>48)</sup> This argument is unfounded, for Āditya I was obviously able to be that far away from his recently conquered territory and, consequently, must have held it firmly. Presumably he left behind a well-organised administration which enabled the architects to continue the work which they had most probably already been carrying out for nearly twenty years. In this light the absence of Āditya I is no argu-

ment at all, since he did not have to be physically present to have these koyils constructed for him. He could even have given instructions while remaining in the field. Parāntaka I, the son of Āditya I, ruled for more than forty years. Nevertheless, Soundara Rajan assumed an astonishing inactivity with regard to the raising of temples, although he can hardly explain the existence of thousands of records in the name of Parāntaka I on the granite walls of numerous koyils. He minimized their importance by assuming that they are either records on shrines built according to the Muttaraiyar-Irukkuveḷ idiom or copies of Parāntaka I inscriptions, originally engraved on the walls of the Muttaraiyar or Irukkuveḷ koyils and replaced on temples raised during the days of Śembyan Mahadevi.<sup>49)</sup> However, we do agree that the presence of Coḷa inscriptions on the wall of a temple does not necessarily imply that the shrine was designed by a Coḷa architect. Soundara Rajan was right when stating that no Pallava influence can be noticed in temples constructed by Muttaraiyar chieftains in their local style, although the inscriptions, of course, mention the name of their Pallava overlords. Nevertheless, certain scholars will no doubt classify such a building as Pallava on the base of its inscriptions. The same is true for the monuments erected by the Irukkuveḷ chieftains when the Coḷas were their suzerains. However, Soundara Rajan's argument lacks consistency when he stated that the Coḷas did not build their koyils according to Coḷa norms, but rather closer if not identical to that of the Muttaraiyars or Irukkuveḷs.<sup>50)</sup> Why allow the Muttaraiyar and Irukkuveḷ architects their locally based, creative freedom, while denying it at the same time to the Coḷas?

Having mentioned all Soundara Rajan's unconvincing arguments, we are not informed about the "Other evidence" which "shows that for the period comprising the latter half of the ninth century and some time after, the above-mentioned tract [i.e. the central Coḷa country and the Muttaraiyar-Irukkuveḷ region] between the tenth and eleventh parallels witnessed no spectacular Coḷa cultural enterprises".<sup>51)</sup> Whatever Soundara Rajan was trying to prove, as long as he does not give a proper description of the terms Pāṇḍya, Muttaraiyar or Irukkuveḷ style, none of his arguments will ever hold. He distinguished, for instance, seven archetypes, but he described only four (I to IV) in eleven variations (a to g).<sup>52)</sup> However, none of these four archetypes can be associated with one of the three political forces which according to him ruled the region before A.D.900. In order to demonstrate that his classification is incorrect, we have arranged all information given by him on this subject in our appendix 4. According to him the most prominent parts of the temples to be described are

the number of talas, the shape of the śikhara and that of the adhiṣṭhāna. We then have to conclude that:

- the Pāṇḍya style is characterized by having square śikharas(Ia);
- the Cālukya-Pāṇḍya style by having a square śikhara(IVc);
- the Muttaraiyar style by a round or octagonal śikhara(II), a round or square śikhara(IIIa), a round śikhara (IVa,IVb) or a square śikhara(IVg);
- the Irukkuveḷ style by a square śikhara(IVd,IVf,IVg) or by a round śikhara in case the temple was built by the Coḷas according to the Irukkuveḷ idiom (II Ib,IVe, note 2 in appendix 4). Although a classification is meant to identify new objects, we are unable to place a newly discovered shrine in one of these classes just mentioned. When it has a square — or a round — śikhara it can belong to at least two subclasses. The classification is only correct in the case of an octagonal śikhara implying a Muttaraiyar building, but then we do not understand why he stated elsewhere in his publication, that the octagonal śikhara is deeply rooted in the south, i.e. in the Pāṇḍya country.<sup>53)</sup> A round śikhara is definitely not a Cālukya or Pāṇḍya feature, but it cannot be used to make a distinction between an Early Coḷa or Muttaraiyar shrine. Moreover, we do not understand the essential difference between a small temple(Ia) and an ekatala(Ib), for an ekatala is always small and a small shrine is always an ekatala. The height of a building is not a criterion either. All three political powers commissioned both ekatalas and dvitalas. Another significant element is the shape of the adhiṣṭhāna.<sup>54)</sup> Although the Muttaraiyar and Pāṇḍya monuments in subclasses Ia and Ib are standing on a base, their shape is not mentioned. Other Muttaraiyar and Irukkuveḷ koyils are standing on adhiṣṭhānas of the types mentioned in the subclasses II and IIIa(cf. II and IVa,IVb,IVf; IIIa and IVg). Type II Ib — a shrine with an adhiṣṭhāna decorated with a lotus moulding and capped by a vyāli-vāri — seems to be the only pure, Irukkuveḷ feature. However, only *one* base of this type is found in the Irukkuveḷ area, viz. at Koḍumbāḷūr. The others are located in the Coḷa territory. Moreover, the shrine at Kuhūr(II Ib) has no lotus adhiṣṭhāna and the temple at Valikandapuram has been demolished except for its socket.

A few final remarks concerning the inconsistencies within each of the eleven subclasses should be made.<sup>55)</sup>

Type Ia: this class consists of small temples with square śikharas. A remarkable difference can be noted, however, in the designs of their grīvā-niches, which belies the contemporaneity of these shrines (cf. Pls.17 and 18).<sup>56)</sup>

Type Ib: this class consists of ekatalas as well. However, the shrine at Tiruchchennampūṇḍi clearly proves this statement to be wrong, for the former

second tala is missing. At some time the remnants of the original śikhara were placed directly on the first tala. Fortunately, the archeologists of Soundara Rajan's own department did a very careful job and restored the second tala as far as possible after collecting the missing stones from the surrounding houses and fields, but the śikhara was not replaced.<sup>57)</sup> The monument at Tiruchchātturai also has two talas. We do not understand why Soundara Rajan included these two dvitalas in a class of ekatalas. Had he paid attention to the shape of the adhiṣṭhānas in this group, he would have noticed that their bases are not identical (cf. Pls. 26, 34 and 35a).

Type II: this class consists of three examples. The shrine at Virālūr has a round śikhara on a round platform and a full-fledged grīvā-niche. That at Melatiruppūndurutti has a round śikhara on an octagonal platform and a full-fledged grīvā-niche. The temple at Kannanūr has a round śikhara on a round platform but its grīvā-niche represents a primitive phase in the development of this feature. These facts do not justify the assumption that these three monuments form a separate class, nor do they warrant the statement that the octagon is a major characteristic of this class.

Type IIIa: this class is based on only one example which has a round śikhara, although we are told that the class is characterized by a square or a round one.

Type IIIb: the three temples in this class are supposed to have a round śikhara and a lotus moulding as part of its base. As we have just noted, the shrine at Kuhūr cannot belong to this group due to its straight adhiṣṭhāna. Moreover, being a dvitala, this koyil does not fit into this class of ekatalas. The second temple is modern from its sockle upwards. Its lotus moulding is a feature characteristic for two other subclasses, i.e. IVd and IVe. Therefore, Soundara Rajan was wrong in extrapolating the other features of the original building from its sockle. The third example is a monument at Lalgudi. According to Soundara Rajan it is a reconstruction in the Irukkuvel style. However, this class does not contain *one* shrine built by the Irukkuvel as he himself admits. So, we wonder which temple could have been the Irukkuvel prototype of this Coḷa reconstruction.

Type IVa: this is a class consisting of dvitalas and tritalas with round śikharas. Two temples are mentioned as examples: that at Nangavaram is a dvitala, but we are not told why it is "distinctively Muttaraiyar". Since the Muttaraiyar style cannot be characterized by a specific height or preference for a specific shape of the śikhara (p. 53), the monument at Nangavaram could be either a Muttaraiyar or an Early Coḷa building, judging by its roof (cf. IIIb).

On the basis of its height it could be called Muttaraiyar, Irukkuvel, Pāṇḍya or Cāḷukya. The second example is the Vijayālaya Coḷeśvara at Nārttāmalai. Other authors believe that this tritala was built by Pallava architects. It is the only tritala in this regions, while, on the other hand, the Pallava area is covered with similar tall monuments. It seems to us that more arguments should be advanced to substantiate the arbitrary grouping of these two temples in one special class.

Type IVb: this class is characterized by a round śikhara, but that at Nemam is square! The adhiṣṭhānas of the three shrines involved represent three different types. The shrine at Śendalai has rafters instead of vyālis; that at Nemam has an ordinary straight base (II) and the kōyil at Tiruvaīyārū has a lotus moulding as part of its base. We do not understand why these three temples are supposed to be identical.

Type IVc: this class consists of dvitalas with a square śikhara and a straight base (II). Strangely enough, the monuments at Tiruchchennampūṇḍi and Tiruchchātturai — earlier classified by Soundara Rajan as type Ib — are included in this group. This should be sufficient reason to reject both classes.

Type IVd: this class is characterized by tritalas, but all three monuments belonging to this group have only two stories. The only real tritala has been classified under IVa. Although we admit that it is often difficult to count the talas because the hāras complicate the picture, there is a simple check, viz. by counting the number of kapotas visible on the superstructure, as these indicate the actual ceiling of a storey. That the Mūvar Kōyil is described as a tritala is really incomprehensible. This monument is one of the most frequently described South Indian koyils of which reproductions can be studied in almost every publication on the subject, including Soundara Rajan's own article<sup>58</sup>). If this is not a special class on account of its tritala aspect, then it must be the combination of a lotus moulding and a square śikhara. The Agastyeśvara at Kilaiyūr does indeed represent this type, but the twin of this monument, standing in the same compound, carries a round śikhara (the only shrine classified as type IVe). These two koyils are supposed to be contemporary and, in our opinion, together prove along with other, similar groups (Kambadahalli and the Sapta Sthānas) that the architects were free to choose whatever shape they liked.

Type IVe: this class consists of only one koyil, just discussed, which resembles type IVd except for its round śikhara.

Type IVf: this class contains several dvitalas on straight bases and crowned by square śikharas, but the base at Tiruchchendurai is not straight

and the śikhara at Aṇḍanallūr is not square! According to Soundara Rajan the latter must be a renovation, since "Irukkuvels never built circular śikharas".<sup>59</sup>

Type IVg: the monument at Śrīnivāsanallūr is the sole representative of this "group". Its base is identical to that of the shrines at Kiranūr(IIIa) and Tiruchchennampūḍi(I or IVc). However, the round kumuda carrying a row of vyālis was a quite common feature on Pallava koyils, as can be seen at Takkōlam in North Arcot and in the Madras museum where remnants of temples from Kaveripakkam in the same district are exhibited. The superstructure of the monument at Śrīnivāsanallūr is a brick construction on a stone first tala. Pallava artists already combined these two materials as the koyils at for instance Takkōlam, Tiruparkadal and Kuram may prove. So, on account of these characteristics the temple at Śrīnivāsanallūr could be considered as an example of a southern Pallava idiom.

In view of the various deficiencies in his classification, Soundara Rajan became by no means credible when he considered the shrine at Tiruppattūr the most substantial and fully developed "Early Pāṇḍya" temple and indeed a landmark in the northern Pāṇḍya country.<sup>60</sup> Its unique features to which he especially drew our attention, are:

- karṇakuṭīs on the grīvā-platform and
- the combination of a fully developed niche-lintel with a makaratorāṇa. In our opinion these are no proof at all. The first characteristic is of Cāḷukya origin and the second seems to be a flower for which no seed was sown, in view of the presence of the complete niche with lintels, pilasters and makaratorāṇas in an otherwise niche-less style. Furthermore, Soundara Rajan should have mentioned that the presence of a vari and of pañjaras is unique in this region, as is the angular podigai with a throating instead of the normally plain, though angular corbel.<sup>61</sup> None of these elements are incorporated in the design of other shrines built by the Pāṇḍyas and their vassals, except in those which are normally considered to be Early Coḷa and later in date.

To conclude this paragraph one final remark should be made. We agree with Soundara Rajan that a regional norm can be a more stable basis for an analysis of the development of certain style features<sup>62</sup>, since this is exactly the procedure we intend to follow in our own investigation. His stumbling-block, however, is the fact that he used the concept of a "region" in the wrong sense. A region implies either a political territory or a regional uniformity, based on, for instance, the occurrence of one exclusive variant or element, or on a characteristic association of variables and types. If we try to map the



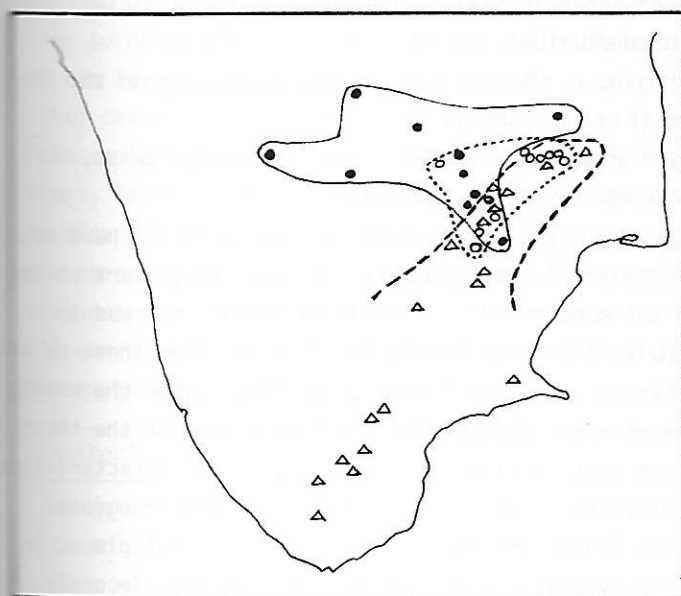


Fig. 11 Overlapping political regions in the Kāverī area and farther south, according to Soundara Rajan.

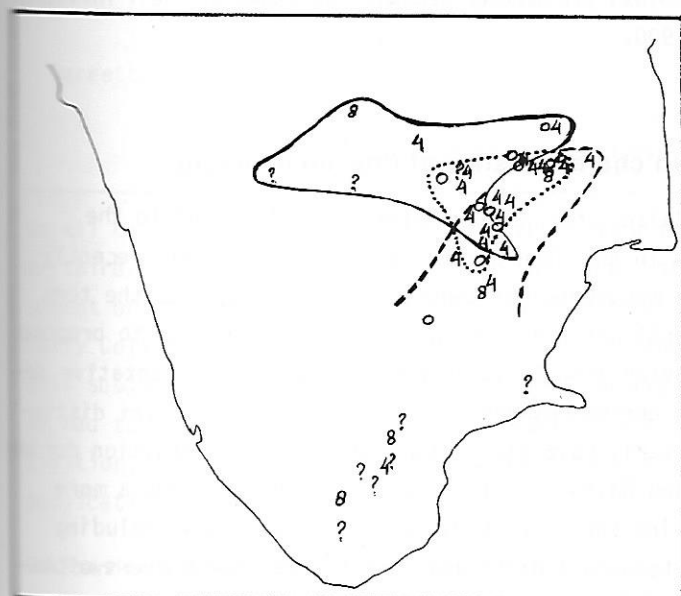


Fig. 12 Distribution of various types of śikhara in the Kāverī area and farther south, according to Soundara Rajan.



information given by Soundara Rajan in fig. n. accompanying his article,<sup>63)</sup> we can only draw the following conclusions:

- separate territories belonging to the Muttaraiyars, the Irukkuveḷs or the Pāṇḍyas cannot be demarcated (Fig. 11, p.57);
- regions characterized by, for example, square śikharas, neither exist, nor coincide with political boundaries (Fig. 12, p.57).

His own words — intended for the Coḷas only — "that art and politics have no direct or parallel relationship"<sup>64)</sup> seem to apply even more to the art of the Pāṇḍyas, the Irukkuveḷs and the Muttaraiyars. If Soundara Rajan's aim was to prove that the Irukkuveḷs built Irukkuveḷ monuments different from those raised by the Muttaraiyars or the Pāṇḍyas, he should have tried to discover the really distinctive characteristics of their styles and the boundaries of their territories. When these two aspects — distribution of stylistic characteristics and political regions — coincide, it seems reasonable to assume a regional norm. In our opinion Soundara Rajan made two mistakes. In the first place, he chose the wrong criteria to prove his rather revolutionary theory. Secondly, he assumed a relationship between political power and art for such groups as the Muttaraiyars, the Irukkuveḷs and the Pāṇḍyas, while denying a similar correlation with regard to the Coḷas, presumably because the range of their influence was too small before A.D. 900.

## 2. Presupposed and known characteristics of Coḷa architecture

Apart from Soundara Rajan, few authors have paid attention to the architectural developments in the Deep South, partly because until recently only a small number of Coḷa monuments was known, and partly because the term Early Coḷa was never properly defined. Jouveau-Dubreuil, the first to propose a terminology for South Indian architectural details, suggested a tentative demarcation of the Early Coḷa period between A.D. 850 and 1100.<sup>65)</sup> Sastri distinguished two phases in the Early Coḷa style: the Pallava-Coḷa transition during the reigns of Vijayālaya and Āditya I between A.D. 850 and 907, and a more pronounced Coḷa period during the rule of Parāntaka I up to and including that of Uttama Coḷa, i.e. between A.D. 907 and 985.<sup>66)</sup> Together these two phases are more than a century shorter than the period proposed by Jouveau-Dubreuil. Balasubrahmanyam introduced a third possibility. In his opinion there are two distinct phases: that of Āditya I and that of Śembyan Mahādevī. These two royal persons were the most important promoters of the construction of

shrines dedicated to Śiva. Their names should therefore be honoured by relating them to particular stylistic periods. The style of Āditya I embraces according to him the period between A.D. 850 and 955, while that of Śembyan Mahādevī flourished between A.D. 955 and 985.<sup>67)</sup> With Sastri he believed that the Middle Coḷa style begins with the reign of Rājarāja I, the most famous of all Coḷa kings. Barrett, on the other hand, included the temples built during the reign of Rājarāja I in his Early Coḷa style. Furthermore, he did not distinguish two phases but three: phase I called after Āditya I from A.D. 866-940; phase II considered to be a transitional period between A.D. 940 and 970 ; and phase III named after Śembyan Mahādevī from A.D. 970 to 1014.<sup>68)</sup> In the scheme below we summarize the various views.

Author's name	Name of period	Dates of period
Jouveau-Dubreuil	Early Coḷa	A.D. 850 - 1100
Sastri	Pallava-Coḷa transition	A.D. 850 - 907
	Early Coḷa	A.D. 907 - 985
	Middle Coḷa	A.D. 985 - ?
Balasubrahmanyam	Āditya I or first phase	A.D. 850 - 955
	Śembyan Mahādevī or second phase	A.D. 955 - 985
	Middle Coḷa	A.D. 985 - 1070
Barrett	Āditya I or phase I	A.D. 866 - 940
	phase II	A.D. 940 - 970
	Śembyan Mahādevī or phase III	A.D. 970 - 1014

In all cases the first phase extends over a much longer period than the second or third. In our opinion this is due to lack of knowledge about the development of the architectural features which should be considered to be typically Early Coḷa and those that are not. The views of the most prominent authors on this subject will be given below. From this survey it will become clear that we had to follow our own course of reasoning and our own procedure of investigation, because little could be derived from the previous art-historical publications.

#### 2.1 The views of Sastri and others.

According to Sastri the features of the Early Coḷa style are:

1. a continuation of the Pallava and Pāṇḍya traditions while the size of the temple grows along with an extension of the imperial borders;<sup>69)</sup>
2. a greater emphasis on the central shrine than in the Pallava and Pāṇḍya

temple complexes;

3. a remarkable simplification of the exterior in contrast to that of the Pallava and Cāḷukya monuments which are covered with images, pilasters and arabesque motifs;
4. the introduction of an antarāla<sup>70</sup>. (This element is, however, present in all small Pallava shrines);
5. the development of the kumuda — originally an octagonal element — into a round profile. (The Pallavas applied the round shape in a version with vertical flutes);<sup>71</sup>
6. the development of the kapota from a straight to a bell-shaped cornice. (This feature was, however, already known to the sculptors of the temple at Kaḷugumalai, Tinnelveli District);
7. the gradual disappearance of the lion-motif;
8. the introduction of a padmabandha on the shaft constricting the upper part into a kalaśa;
9. the widening of the palagai and the appearance under it of a petal moulding, the so-called idaḷ;
10. the disappearance of the curved roll-profile of the Pallava podigai. This becomes angular and bevelled with or without rolls, called taraṅga, which do not run all the way up to the bhūtagaṇa frieze or uttira;
11. the evolution of the "pilaster-niche" into a "prepared" niche by which Sastri means a deep niche;
12. the appearance of a vyālivari over the kumuda. (This is, however, a typical Cāḷukya decoration, though also applied on the Pallava Shore Temple at Māmallapuram);
13. the frequent absence of the median band on the podigai;
14. the presence of bhūtagaṇas and vyālis under and over the kapota respectively;
15. the change of the shovel-top over the kūdu into a siṃhamukha or trefoil;
16. the gradual transformation of the kūdu into a circle without heads;
17. the disappearance of a peristyle consisting of subshrines.

As against the Pallava style, Early Coḷa architecture indeed shows obvious changes in many respects. Comparing the features mentioned above with those in the list of Cāḷukya characteristics, the numbers 12, 15 and 17 would appear imitations. The aspects referred to under 8, 10, 11 and 16 are new and therefore Early Coḷa contributions( cf. pp.42-43).

For the sake of completeness some Early Coḷa characteristics mentioned by other authors may be added. Numbering on, these are:

18. an ogeed contour of the domical finial on the śikhara similar to those at Bādāmī and Paṭṭadkal;<sup>72)</sup>
19. a niche with pilasters surmounted by makaratorṇas, but with a lintel resting on blocks, while the capitals of these side pilasters are considerably lower;<sup>73)</sup>
20. the absence of a "wall of shrines" over the ardhamāṇḍapa;<sup>74)</sup>
21. the introduction of sculptures and reliefs under the pilasters in the general design of the temple;<sup>75)</sup>
22. the appearance of a lotus moulding instead of a vertical jagatī;
23. the introduction of figures on either side of the niche, iconographically related to the image in the niche;
24. an increasing variety of pilaster-contours. Side by side with square shapes, circular and octagonal kāls occur;<sup>76)</sup>
25. the appearance of a row of circles running along the bottom-fascia of the kapota;<sup>77)</sup>
26. the introduction of the koḍikkarukku;<sup>78)</sup>
27. the replacement of Ardhanārī by Liṅgodbhava in the western niche of the garbhagrha;<sup>79)</sup>
28. the incorporation of a pranāla, a feature always absent in Pallava monuments.<sup>80)</sup>
29. the introduction of the vari interrupted by niches and kumbhapañjaras.<sup>81)</sup>

The authors quoted in the above enumeration, complement each other and nowhere contradict each other. They mentioned indeed a large number of features which were, however, designed over a long period and which they described in vague, comparative terms such as "simpler", "larger", "wider" and so on. This does not provide a particularly clear picture. Neither do the opinions of Brown and Sivaramamurti. However, these two authors have to be quoted explicitly, because they attributed a far greater importance to the influence of the Cāḷukya style on that of the Coḷas. The ogeed contour — already decisive for the profiles of the Cāḷukya monuments — as well as the row of vyālis "squir-  
ring under the weight of the superimposed masonry, as if their bodies were immured within the joints of the structure..."<sup>82)</sup> should be regarded as products of a virile influence, i.e. that of the Cāḷukyas, announcing a completely new movement in South India. Sivaramamurti mentioned in particular the koṭils at Śrīnivāsanallūr, Kumbakonam and Koḍumbāḷūr as typical examples of Pallava-Pāṇḍya influence with an unique admixture of Cāḷukya-Rāṣṭrakūṭa ornamental elements. He also mentioned the phenomenon of the nāṭṭiya-peṇs, which can be compared to the mithunas at Bādāmī.<sup>83)</sup>

## 2.2. The views of Balasubrahmanyam.

Balasubrahmanyam used inscriptions on the walls of a temple, in copperplates or in manuscripts - for his classification of temple styles. Unfortunately, these records still give rise to various interpretations and consequently, many dates due to the fact that the chroniclers often indicated rulers merely by their honorific titles such as Parakesari (varman) or Rajakesari (varman) without further specifications. Perhaps the omission resulted from lack of space, like our shorthand came into existence due to lack of time. Early regnal years often produce special problems, since many kings ruled for only a short period.<sup>84</sup> As a result of these chronological uncertainties Balasubrahmanyam completely denied a noticeable development in the Coja architecture. This is not be surprising since his chronology is based on inscriptions and therefore questionable. Consequently, the corresponding stylistic development shows inexplicable sequences and archaisms. His statement that "stylistic features should be derived from [a] sufficient number of dated monuments" and that "...it is unsound to go through the process in the reverse order"<sup>85</sup>, is only valid when monuments can be dated firmly. If this is not the case, then we are forced to proceed in "the reverse order", that is by using the data provided by the exterior features of a building.

However, Balasubrahmanyam has made an important contribution to our knowledge of Early Coja architecture because he actually discovered many shrines which until recently were unknown. He traced the origin of each and every temple and provided interesting information about the mythological background of their locations. However, with regard to the art-historical development, we are left in the dark. In a period embracing more than a century, he was unable to discover more than nine style features, which he formulated as follows:<sup>86</sup>

1. the temples are stone (kaṇṇai) buildings, usually replacing earlier brick shrines;
2. they are humble structures of one to four talas;
3. the śikhara may be square, round or octagonal;
4. the plinth is simple, sometimes with a lotus moulding and a vyāli or elephant frieze;
5. the garbhagṛha is normally square, occasionally apsidal, with an ardhamaṇḍapa; sometimes a false antarāla is present or even an antarāla with a connected or detached mukhamāṇḍapa;
6. the number of devakoṣṭhas varies from three to five, with a striking preference during the days of Aditya I for Ardhahārī in the western niche;
7. in many cases there is a makaratoraṇa over the devakoṣṭhas;

8. the cornice is crowned with a vyāli or goose frieze; the kūḍus receive a siṃhamukha top; circles appear immediately above the edge of the kapota and koḍikkarukkuṣ on its corners;
9. the niches of the śālās and the kuṭīs situated on the higher talas accommodate images.

Although these features are characteristic of both of his two phases, the second phase shows, moreover, the following "developments":

1. gradual transition from the first into the second phase;
2. the number of devakoṣṭhas increases and may amount to sixteen; they are not always real niches, but rather intermissions on the walls by way of pilasters crowned with makaratorāṇas; sometimes niches are actually carved out in the walls and Balasubrahmanyam reported — not without regret — that inscriptions were often obliterated due to this procedure. Nevertheless, he immediately added that "temples with an increased number of devakoṣṭha figures can be classified as belonging to the Śembyan Mahādevī style".<sup>87)</sup> This may be true for the images in the niches, but not for the temple itself, for the number of carved-out devakoṣṭhas obviously cannot serve as a stylistic feature if older inscriptions were destroyed due to these additions. If the obliterated inscriptions and the carved-out devakoṣṭhas were practically contemporary — as Balasubrahmanyam's reasoning would seem to imply — then we would have to assume that the chronicler received a rap on the knuckles by the stone-cutter at the very moment he was committing the glorious deeds of his monarch to the temple walls!
3. several apsidal koyils were constructed. The examples mentioned are the shrines at Tirukkalikkunram, Tirumulaivāyil, Pennadam and Tirumiyachchūr.<sup>88)</sup>

From this summary we would have to conclude that a temple built in A.D. 850 would in no way distinguish itself from a shrine raised a century later whereas a building firmly dated in A.D. 960 suddenly shows "gradually transitions" and an increasing number of niches, when compared with a shrine erected only ten years earlier.

The simplicity of Balasubrahmanyam's analysis compels mistrust and scepticism, all the more so because he was inconsistent in applying his primary criterion, i.e. the contents of the inscriptions. This is particularly disturbing in the case of the apsidal temples, the third characteristic of his second phase. Of the four examples which he mentioned the shrines at Tirumulaivāyil and Tirumiyachchūr bear inscriptions exclusively from the days of either unspecified kings or of Rājarāja I and Rājendra I, without referring to the date of con-



struction.<sup>89)</sup> The inclusion of the koyil at Pennadam is completely incomprehensible, as this temple only bears inscriptions from the reign of Rājendra I and later.<sup>90)</sup> The shrine at Tirukkalikkunram is a small, disputed building. In spite of the absence of inscriptional evidence Balasubrahmanyam attributed it to Āditya I, although its apsidal shape would imply that it belongs to his second phase. Barrett dismissed the monument entirely because, in his opinion, it cannot be older than the 13th century.<sup>91)</sup> So, according to inscriptional evidence, none of the four apsidal monuments mentioned by Balasubrahmanyam was erected in the Śembyan Mahādevī phase, which implies that at least one of the main characteristics of this phase is invalid.

### 2.3. The views of Barrett.

Although Barrett's objects are the observable and measurable units of the temple building itself, his work hardly refutes the conceptions put forward by Balasubrahmanyam. The introduction of a transitional phase in the middle of the 10th century on the basis of a supposed development in style and the inclusion of the Rājarāja koyils in the Early Coḷa period are rejected by Balasubrahmanyam, since he did not accept "The existence of a high plinth, the erection of a 'false antarala' and the installation of Agastyar...[as] basic factors for the enunciation of a new phase [that is the second] of style"<sup>92)</sup>

Barrett, on the other hand, believed the political situation to be sufficient proof for his tripartite division. He did not need inscriptions to reinforce his opinion: "...religious art repeats the pattern of the political history with two great outbursts of creative energy separated by a bleak and mainly unproductive period of about twenty years."<sup>93)</sup> He rather doubted the late Pallava influence on the style of phase I, but considered Muttaraiyar influence to have been possible.<sup>94)</sup> He also rejected the idea of a Pallava-Coḷa transition, because a connection with the Pāṇḍya idiom seemed to him a more fruitful starting-point.<sup>95)</sup> This connection, however, cannot be established, because until now no structural temples dating from the pre-Coḷa phase have been discovered in Pāṇḍya territory. Consequently, his thesis cannot be tested and actually turns out to be merely a remark, for it does not reappear anywhere else in his text as a perceptibly determining idea.

Barrett's arguments to consider the Rājarāja temples as Śembyan Mahādevī monuments were put forward more convincingly. This lady – respectively spouse, mother and aunt of three Coḷa princes – seems to have devoted herself throughout her long life to the erection and reconstruction of temples, both in and beyond the Coḷa heartland. Most likely, she had a workshop with skilled craftsmen at her ser-



vice. These artists were probably not immediately relieved from their honorable assignments after the death of Uttama Coḷa in A.D. 985. Śembyan Mahādevī would have persuaded her nephew Rājarāja, his wives and daughters to follow in her son's energetic example by keeping the workshop provided with commissions. Assuming the existence of an atelier founded and financed by Śembyan Mahādevī — even long after Rājarāja I became king — it seems logical to consider the Rājarāja I monuments as basically Śembyan Mahādevī koyils, for their style would then still be rooted in that of the workshop and not the result of an entirely new source of inspiration, which, in addition, should then have exceeded the stimulating power of Śembyan Mahādevī.<sup>96)</sup>

Barrett determined three stylistic phases on the basis of six elements, which in the course of time underwent striking modifications. These are:

1. the composition of the adhiṣṭhāna;
2. the shape and decoration of the walls;
3. the shape of the ground-plan of the vimāna;
4. the shape of the ground-plan of the ardhamandapa and the way in which it is connected to the vimāna;
5. the shape of the śikhara;
6. the place of the parivāradevatās in the temple complex.

To each of the first four aspects Barrett devoted a chapter illustrated with drawings. He dwelled shorter upon the last two features because they have been liable to change to such an extent that the original śikharas and parivāralayas have disappeared under thick layers of stucco, or have been replaced by constructions of brick. Moreover, he believed, that the successful experiments of the Pallava architects definitely established the shape of the South Indian śikhara. The Coḷa artists distinguished themselves merely by leaving out the hāra and the karnaḷuṭīs on the grīvā-platform, which weakened the strictly pyramidal character of the Pallava superstructure. The hāra over the ardhamandapa disappeared at the same time, so that this front-porch could be distinguished more easily from the vimāna.<sup>97)</sup>

In the following paragraphs we intend to discuss Barrett's views on the development of the four first aspects through three successive and distinctive phases.

#### 1.1.1. The Coḷa adhiṣṭhāna.<sup>98)</sup>

The three basic shapes of an adhiṣṭhāna are — according to Barrett — determined by the shape of the kumuda and that of the jagatī. He distinguished:

1. a straight profile with a kumuda showing three facets (Fig. 13a, p.66)

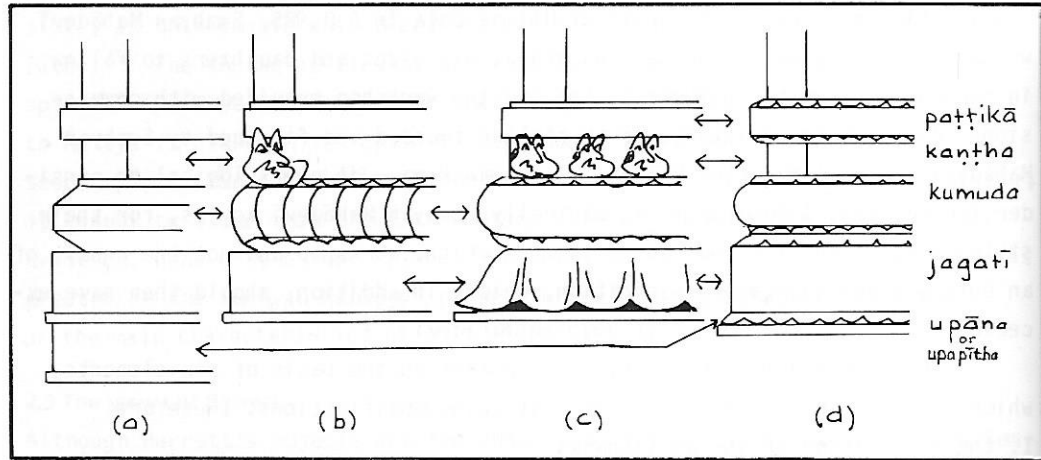


Fig.13 Adhiṣṭhāna types according to Barrett.

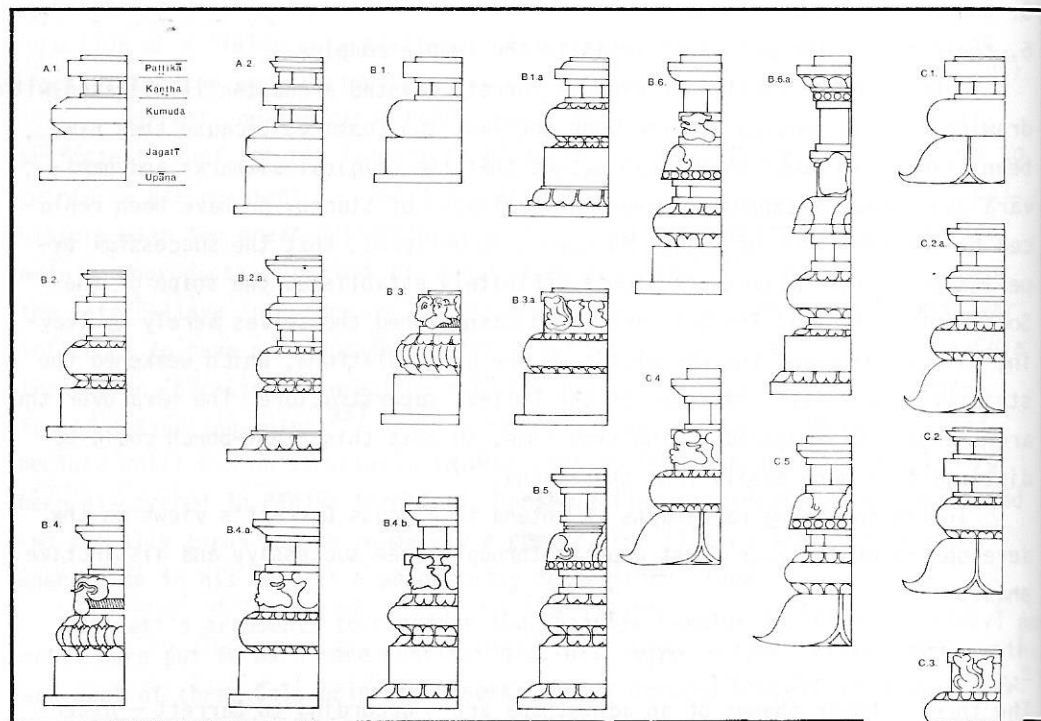


Fig.14 Typology of Early Coḷa adhiṣṭhānas (after Barrett).

2. a single curved profile with a rounded kumuda (Fig. 13b);
3. a double curvature consisting of a lotus jagatī and a rounded kumuda (Fig. 13c).

Variant c seems to have been an original contribution of the Early Coḷa architects. The straight profile was a feature applied by the Pallavas.

The rounded, plain kumuda — variant b — can be found on a number of Pallava temples. However, variant d is a typical Coḷa combination. Its main characteristics are the replacement of the tripaṭṭa kumuda (a) by the rounded version (b), a padma-bandha decoration on each and every layer and the absence of vertical flutes on the kumuda. Other subvariants are shown in Fig. 14. Most of them include the vari which is, however, part of the wall. So, these variants can be "reduced" to their corresponding types without vari (for instance A2=A1; B4=B3; B4a=B3a). The straight kaṇṭha, which is typical of the Pallava style, can be replaced by a vyāli frieze. We already noticed these playful, tumbling animals on Cāḷukya and Pallava monuments, but there they are depicted on the kaṇṭha in order to hide the square blocks which extend over the kumuda at regular intervals and imitate the wooden floor-joints of brick temples. Their functional meaning was lost when shrines were built of stone. As a result, the Coḷa architects placed the vyālis in a continuous row. A further subclass showing the rounded kumuda is based on the combination of a kapota over a plain kumuda. The presence of the small cornice instead of a paṭṭikā on the adhiṣṭhāna is a phenomenon often occurring on Cāḷukya monuments. Nevertheless, Barrett regarded a kapota in that place as an original innovation of the Early Coḷas.

The typical Early Coḷa adhiṣṭhāna could be constructed on the basis of the features mentioned above. The arrows in Fig. 13 indicate how various elements could be interchanged horizontally. This is apparently exactly what the Coḷa artists did in view of the large number of subclasses distinguished by Barrett (Fig. 14). The Pallava upāna seems to have fallen into disuse during the Early Coḷa period. In an elevated version, this platform returned as part of the temple only during the reign of Rājārāja I, after which it normally formed the base of all vimānas, maṇḍapas and gopuras.

The typology of Barrett shows, however, many deficiencies (Fig. 15, p. 68). Firstly, the characteristics of phase I cannot be used in dating monuments. They either occur in all phases (A1, A2 and B4a) or on one temple only (B3a), or they are located on the borders and even outside the territory conquered by Āditya I (B3 and B4). Phase III produces similar problems. Here variants B1, C2a and C5 occur only once and the adhiṣṭhānas of type B1a and B2 are part of shrines which according to some authors were built in other periods.

Phase I	Phase II	Phase III
A1	A1	A1
A2	A2	A2
-	-	B1. <sup>R</sup>
-	-	B1a. <sup>?</sup>
-	-	B2. <sup>?</sup>
-	B2a. <sup>?</sup>	B2a
B3. <sup>P</sup>	-	-
B3a.	-	-
B4. <sup>P</sup>	-	-
B4a	B4a	B4a
-	-	B4b <sup>??</sup>
-	-	B5
B6	-	-
-	-	B6a
-	-	C2a.
C3	C3. <sup>?</sup>	-
C4	-	C4
		C5.

. = only one temple of this type  
 R = only one temple, but renovated  
 ? = only one temple, but controversial  
 P = only one temple in Pallava territory  
 ?? = two controversial temples  
 .? = two temples, but one controversial  
 .R = two temples, but one renovated  
 .P = two temples, but one in Pallava territory

Fig. 15. Distribution of adhiṣṭhāna types over three style phases.

In the second place Barrett failed to explain the sequences suggested in his typology. Studying Fig. 15 we wonder how B1 in phase III can have developed out of A2, whereas B3 — occurring only in phase I — consequently, must be older than B1. We receive rather unexpected explanations. Quoting Barrett "B1... follows A1". "B2 follows A2..." "A2... is identical with A1". "B3... follows B1". From Fig. 15 we may conclude that B3 certainly does not follow B1; that B2 follows B1a and definitely not A2. B1 follows A2 instead of A1. Even if "to follow" is used here as an equivalent for "identical with", except for a small padmabandha, Barrett's typology does not seem to make sense. We should bear in mind that he had to prove the unorthodox view that three phases can be distinguished in Early Coḷa architecture. In his attempt to convince us he should have emphasized differences instead of similarities.

### 2.3.2. Shape and decoration of the wall. 99)

The most outstanding components of a temple wall are the kāl, the podigai, the prastara, the devakoṣṭhas and the makaratoraṇas. Of these five elements Barrett

could only observe evolutionary tendencies in the podigai and the devakoṣṭhas, at least this can be concluded from the fact that he described only one variant for each of the other three elements, which, therefore, do not seem to change during the three phases. However, the profile of the prastara can be straight or bell-shaped. This has been noticed by many authors, but was not mentioned by Barrett. The only difference between a Coḷa and a Pallava prastara which he pointed out, is the replacement of the Pallava shovel by the Coḷa śimhamukha.

#### 2.3.2.1. The kāl.

The Early Coḷa *pilaster* is a slender version of the massive Cālukya and Pallava pillar. The constriction of the padmabandha seems to be a Coḷa contribution and is very striking indeed. Due to the introduction of this bandha the upper part of the pilaster becomes a kālāśa. In Pallava monuments the mālāsthāna under the padmabandha produces a rather ponderous and awkward impression. The Coḷa sculptors, on the other hand, utilized the mālāsthāna to display their artistic abilities adding chains of flowers and beads interspersed with nāṭṭiya-peṇs, animals and small panels.

#### 2.3.2.2. The podigai.

This is the most important element on which Jouveau-Dubreuil based his temple styles, obviously repeating a traditional western practice.<sup>100</sup> The Pallavas introduced a podigai of which the large, even rolls run onto the uttira. The Coḷas, however, designed a completely new roll-pattern in which a complex profile of the throating emerges which does not run onto the uttira, but is separated from it by a vertical fascia (Fig. 16). The decorated middle band (paṭṭa) occurs in both styles although the Coḷas applied it more frequently.

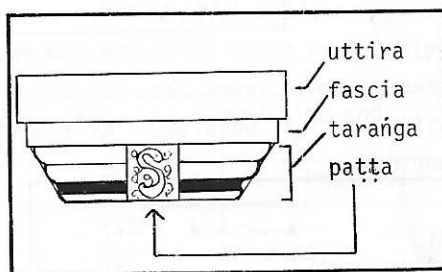


Fig. 16 Early Coḷa podigai.

#### 2.3.2.3. The devakoṣṭhas.

According to Barrett the niches of the Early Coḷa period consist of "two split pilasters... which support, on the corbel, on the vira-kaṇṭha or directly on the phalaka, a lintel of two straight mouldings... Over the lintel is a great demilune,..."<sup>101</sup> This shape seems to remain the same throughout the period embracing the three phases, for he did not mention changes in this new combination of elements.

#### 2.3.2.4. The makaratoraṇa.

A makaratoraṇa is a kind of crescent flanked by two makaras resting on a lintel, an element which is new in early South Indian architecture. The difference between a Pallava and Coḷa toraṇa is that in the former the makaras really span an arch—as indicated by the name makaratoraṇa—whereas the Coḷa version should rather be described as a makara-tympanum. Barrett did not go into the development of this unique, ornamental detail of the temple wall, although it displays great variation within the Early Coḷa period.<sup>102)</sup>

#### 2.3.3. The ground-plan of the vimāna.<sup>103)</sup>

With regard to the ground-plans Barrett distinguished five major types (A-E) with together show fifteen variants of which B2 is represented by three variations, (B2, B2a and B2b, Fig. 17). His arrangement suggests an evolution from a simple, square building to a more complicated pattern, in which one or more frontispieces and recesses alternate. However, this division into major types and their variants hardly facilitates an investigation based on a stylistic development in three phases, such as that which Barrett presumably used as his starting-point. From Fig. 18 we learn that four of the five major types were common in phase I, represented by seven of the fifteen existing variants. All major types occur among the Śembyan Mahādevī monuments with fourteen of the fifteen variants. Types B2a, B2b and B4 occur only once, B5 twice. Such a classification is unsuitable as a means for dating temples, it only characterizes periods.

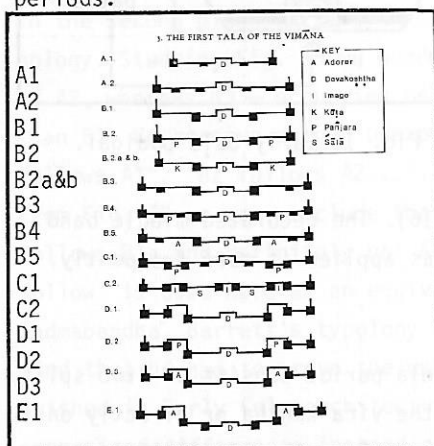


Fig. 17. Typology of vimāna ground-plans (after Barrett).

Fig. 18. Distribution of vimāna ground-plans over three style phases.

Phase I	Phase II	Phase III
A1	A1	A1
-	A2*	A2 <sup>R?</sup>
B1	B1 <sup>?</sup>	B1
-	B2*	B2
-	-	B2a&b*
B3	B3	B3
-	-	B4*
-	-	B5
-	C1 <sup>?</sup>	-
D1*	-	D1*
D2*	-	D2
D3	-	D3*
E1*	-	E1*

\*=one temple  
?=controversial  
R=renovated

#### 3.3.4. The ground-plan of the ardhamandapa. 104)

In his discussion of the ground-plan of the porch, Barrett brought in more than the term ground-plan suggests, for he not only paid attention to the ardhamandapa, but also to its connection with the vimana. He distinguished three major types (Fig. 19), which are divided into fourteen subclasses due to the presence of niches, blind devakoshthas, pañjaras or adorers. Unfortunately, only one of Barrett's three major types coincides with one of his three stylistic phases (Fig. 20). Main types I and II occur in all three periods, whereas the

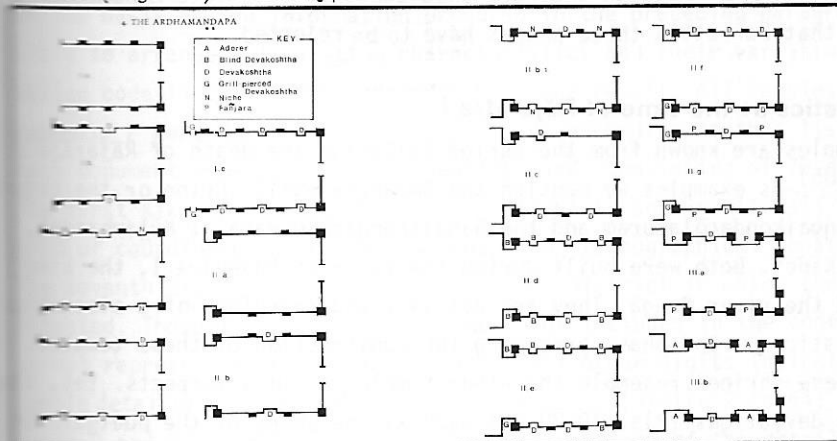


Fig. 19 Lay outs of an ardhamandapa and its connection to the vimāna (after Barrett).

The ardhamandapa, its ground-plan and connection to the vimāna.		
Phase I	Phase II	Phase III
Ia	Ia.?	-
Ib	Ib	Ib
Ic.	-	-
-	-	Id.
-	-	Ie.
IIa.	-	-
IIb.	IIb	IIb
-	IIb1.	IIb1
-	IIc.	-
-	-	IIe.
-	IIe.	-
-	-	IIg.
-	-	IIg.
IIIa.	-	-
IIIb.	-	-

Fig. 20. Distribution of temple layouts over three style phases.  
- = one temple of this type



third type occurs only twice in the first period and is represented by two variants. Only variant II<sub>f</sub> is characteristic of the third phase. It includes nine examples and is therefore a valid criterion for classification. This variant is similar to that used by Balasubrahmanyam, i.e. the number of niches being more than three. Variant Ia is typical of phase I, if we ignore the sole example belonging to the second phase. As this happens to be a controversial temple, this is admissible. All other variants either occur in all phases or were designed only once. As such they are unsuitable to date Co<sub>2</sub>a monuments. All this implies that Barrett's three phases have to be rejected.

### 3. Characteristics at the time of Rājendra I

Few examples are known from the period following the death of Rājara<sub>2</sub>a I in A.D. 1014.<sup>105)</sup> As examples we mention the Amman (Pārvatī) shrine or the Uttara Kailāsa at Gaṅgaikoṇḍacō<sub>2</sub>lapuram and the Gaṅgaikoṇḍacō<sub>2</sub>leśvara at Kū<sub>2</sub>lambandal, not far from Kāñcī. Both were built during the reign of Rājendra I, the king who conquered the river Gaṅgā. They are dvitalas and therefore of a size which is characteristic of the phase preceding the construction of these temples. In general these shrines resemble the other temples in many respects. Yet, they display a few deviations (Pls. 19-20, 22) such as the shape of the podigai. On the Amman shrine this has a tenon, which on the other temple even seems to show a certain swelling assuming a spherical shape. The profile of the kapota at Kū<sub>2</sub>lambandal has become bell-shaped. The row of circles has been moved up, so to say, in order to make room for a plain, vertical moulding as can be seen — among others — on the shrine at Tiruvālīśvaram (Pl. 21a). The bhūtagaṇa frieze under the kapota is replaced by the much simpler padmabandha. The antarāla and a separate shrine for Amman are completely new elements which are added to the old layout. The number of niches has been increased as can be seen at Gaṅgaikoṇḍacō<sub>2</sub>lapuram and Kū<sub>2</sub>lambandal. Moreover, kumbhapañjaras have been introduced in the recesses of the vimāna walls of the Amman shrine. There may also be karna<sub>2</sub>kuṭṭis on the grīvā-platform, and finally, the composition of the part directly over the devakoṣṭha lintel can vary considerably for, instead of the makarato<sub>2</sub>raṇa, the Cālūkyā type of kapota or canopy has been applied.

In view of the fact that the profile of the kapota seems to be a Pāṇḍya contribution, while the karna<sub>2</sub>kuṭṭis are elements which occurred previously around the octagonal śikhara of some Pallava temples, it seems legitimate to assume that certain ideas were imitated from other parts of the huge empire created by Rājendra I — except for the podigai. From Balasubrahmanyam's survey we must conclude that these ideas conquered the delta with considerably less

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dinates 078005 has a śikhara of type 2. Combining this information with map 3 we learn that the koyil at Śrīnivāsanallūr has a square śikhara.

The computer was asked to print the variants of aspects 2 to 64 into maps in order to demarcate regions based either on one aspect in all its variations or on a combination of aspects of one particular variant. Some elements appeared to occur in one variation only, thus creating a single, large and uniform region; other aspects or combination of aspects showed up as if an explosion had split the entire Coḷamaṇḍalam into tiny pieces. Such maps — and consequently the aspects on which they are based — are of no use in our type of investigation, since in neither case a diffusion model can be extrapolated, i.e. the variants do not show a development either in space or in time.

Fortunately, many distribution-patterns could be "read" as spatially arranged series of subregions characterized by a *predominance* of one variant or a particular combination of aspects, illustrating in one way or the other, the assumptions and hypotheses represented in chapter one. The demarcation of these subregions was mainly based on common sense, namely, partly on the notion that diffusion of new ideas will be more like waves over a broad frontier than like the unpredictable path of a leaping frog, and partly on our topographical knowledge of the terrain over which these ideas spread. After the computer had done its job, our procedure was as follows: we drew flowing lines around groups of identical numbers; automatically other numbers were included in such circled region of identical digits, implying that these "intrusions" were either younger or older than the majority of the numbers included within an area surrounded by such lines, or built by other people than the Coḷas.

Whatever map was asked for, depended on the problem to be solved. Sometimes it was considered illustrative to be given one single temple part in all its variety or uniformity and sometimes it was necessary to ask the computer to produce several features in one particular combination, as for example in the case of the adhiṣṭhāna. The selection of each combination will be accounted for in chapters three and four.

However, before starting our investigation we should like to explain why we reduced the large number of aspects (cf. appendix 5) to the group actually discussed in the next two chapters.

#### *Aspects 2 to 9.*

These refer to a cluster of elements belonging to the upāna and the adhiṣṭhāna, i.e. the plinth and the socle. Some authors consider them to be a unit, calling it the base. Occasionally the vari or vedi is also included, although

it is already part of the temple wall. Visually, however, it seems to belong to the base. Each element of this "base" was studied separately and in combination with one or more other elements of the "base", since the distribution-patterns of these separate and combined elements seemed to show an interesting spatial arrangement. However, the third, fourth and fifth variants of aspect 6 will not be included in our discussion. They are series of charming panels on the kaṇṭha, which would have to be studied on grounds on their iconographical contents. Their occurrences were nevertheless, mapped in combination with parts of the kāl, since they happen to be extensions of pilasters.

*Aspects 10 to 18.*

These also concern a cluster, viz. the kāl from the vari to the palagai. Of all these aspects only the tenth was considered to be sufficiently important for further discussion. Almost all the features under 12 to 16 and 18 and their variants have disappeared under thick layers of plaster, so that accurate observations could be made only incidentally. Feature 17 does not really vary, for all Coḷa temples possess the wide palagai, so the distribution-pattern of this detail only showed up as one large, uniform region. The absence or presence of the idaḷ, the pointed ends of the kamala (aspect 16,4) and the lotus-buds (11-1) appeared to provide an interesting distribution-pattern. So, of this complex cluster only the contours of the kāl together with the occurrence of idaḷ and/or lotus-buds are studied.

*Aspects 19 to 22.*

These refer to the podigai in all its parts. Naturally, aspect 19 is discussed, since it is always possible to determine the profile of a podigai. Aspects 20 and 21, on the contrary, are often covered with so much plaster, that few conclusions can be drawn, except that every corner podigai is decorated with a panel on each side. Aspect 22 represents the feature of a nāṭṭiya-peṇ or a rearing vyāli which can be placed on the palagai and, consequently, can fill the space between the corner-podigais. Its distribution-pattern is sufficiently interesting to be discussed, although the number of occurrences is small.

*Aspects 23 to 28 + 63 + 64.*

These refer to the prastara, an element consisting of—mostly—hidden parts, for many monuments are surrounded by constructions which protect these buildings their visitors from the ever burning sun and the rarely occurring monsoon rains. However, at the same time they wrap the main shrine in darkness, with

the result that it is often difficult to study various details and especially the tale-telling kūdu on the kapota is frequently invisible. Even in cases in which it can still be seen it is covered by thick layers of plaster hiding its delicately curved decoration and the contents of the kūdu. The only element which, in spite of all the "improvements" carried out in the course of time remained reliable is the uttira. This is usually adorned with a bhūtagaṇa frieze, though not always, as indicated by aspect 23. Since most parts of the prastara are represented by 9's we shall not discuss them.

#### *Aspects 29 to 32.*

These aspects concern the composition of the devakoṣṭha which consists of a makaratorāṇa (aspect 29), a kapota instead of a makaratorāṇa (aspect 30), a makaratorāṇa representation in a crescent enclosed by makaras (aspect 31) and a lintel on which the whole rests (aspect 32). The shape of the makaratorāṇa can basically be divided into two types, that is, one in which the tails of the makara hang down (aspect 29, 1-2) and a second in which the tails rest on the lintel (aspect 29, 3-4). Among both types are plain and decorated examples. Decorations are usually hidden from view or seriously damaged and occasionally represent unidentified Purāṇa stories. Therefore we did not investigate either the decorated makaratorāṇa (29, 2-3) or the plain versions (29, 4-5). The unorthodox lintel and its three variants (32, 1-3) provided a pattern in which no regions could be discovered. Obviously, the choice between a plain or decorated makaratorāṇa was completely arbitrary as well as the application of a padmabandha on the devakoṣṭha lintel. The only aspects which were considered useful for further investigation were the kapota (aspect 30) and the mere presence of a makaratorāṇa in its hanging or curled up version.

#### *Aspects 33 to 40, + 44 + 48.*

These aspects belong to the vimāna. Most of these features are clearly visible and must have been present at the time of the original construction. The śikhara (aspects 37 and 38) forms an exception, both in the outline of its ground-plan and in its profile, for the superstructure is more liable to decay than any other part of the monument. In case of renovation a brick replacement was usually chosen as this would allow for a larger number of talas than the original stone roof in accordance with the tendency to build higher pyramids. These later brick superstructures are usually round even when the original version was octagonal or square. Only in the Tiruchirappalli District sufficient original śikharas appeared to have survived. All other aspects provide a complete picture on the map and will be discussed in the next chapter.

*Aspects 40 to 43. + 45 to 47.*

These aspects refer to the ardhamandapa and other porches and their connecting parts. They are of great importance for a further discussion, because neither collapse nor partial disappearance can hide their shape and content. However, we shall leave out three aspects. Aspect 41 is omitted, because in many instances it could not be determined whether the mukhamandapa was indeed contemporary or not, due to the fact that older inscriptions usually cover the walls of - presumably - later halls. This normally indicates that either the original vimāna or its mukhamandapa has been collapsed after which its inscriptions were re-engraved on the later buildings. Structurally a mukhamandapa is unstable, for it encloses a large space and the pillars have to carry the heavy granite slabs forming its roof. So, the mukhamandapa is more liable to collapse than the more massively built vimāna or even ardhamandapa. Therefore, the chance is small that the present halls are contemporary with the still existing, original koyils. The 42nd aspect occurs only once among Coḷa temples, viz. at Pullamaṅgai, which was therefore left out. The same applies to the 47th aspect concerning the composition of the windows. This appears to be a Cāḷukya feature never used by the Early Coḷas. The 45th aspect was not mapped either, for it appears to be a later addition to existing lay-outs.

*Aspects 49 to 59.*

These details concern the contents of the main devakoṣṭha and the lateral niches. With the exception of aspects 49 and 50 the data can be taken for granted. Either the contents do not vary, except for the western vimāna niche, or they vary in a way which makes registration impossible. The last four aspects refer to the contents of the lateral niches of the ardhamandapa. As regions based on these aspects could once more not be established, further discussion of the contents of the devakoṣṭhas was abandoned. Moreover, images are movable objects and therefore often disappeared, replaced or substituted by other and later icons. Aspects 49 and 50, on the other hand, describe groups of images which must have been included in the temple design from the very beginning, for they are blocked-out forms next to the devakoṣṭhas. Moreover, their occurrence shows a regional bias to be discussed in chapter four.

*Aspects 60 to 62.*

These concern the details of the pañjara. This will prove to be an important element in the following chapter, its distribution-pattern being sufficiently significant to deserve special attention. Aspect 62, however, was not taken up. It refers to the composition of the pañjara-kūdu which has many variations,



resulting in a chaotic distribution-pattern.

It should be noted that the order of the code-list is not maintained in the ultimate description for reasons which will be given in the relevant chapters and paragraphs.



#### NOTES TO CHAPTER TWO

1. Cf. de Lippe's bibliography pp. 403-05; Brown, p. 83.
2. Srinivasan, K.R. 1964, Vol.II, p. 221; Idem 1975, pp. 221-22, 238. See also our appendix 3.
3. Srinivasan 1975, p. 216; Chandra 1975, pl. 106; de Lippe, pp. 154-55, pl. 161.
4. Zimmer, Vol. II, pls. 266-71. These double nāsikās are sometimes replaced by either a single one (Valaiyaṅkuṭṭai Ratha, Dharmarāja Ratha), or by double or single pañjaras (Bhīma Ratha, Gaṇeśa Ratha), cf. Chandra 1975, pls. 107, 110-11. The second tala walls carry celestial beings which are, however, variable elements, for they can be replaced by pañjaras (Valaiyaṅkuṭṭai Ratha) or by dvārapālas (Southern Piṇḍārī Ratha), cf. Chandra 1975, pls. 107-08. See also Srinivasan 1975, pp. 231-32, where he discussed the appearance of pañjaras.
5. The same combination is displayed by the Draupadī Ratha. However, this type of base is only one of the variants they tried out. The adhiṣṭhāna of the Dharmarāja Ratha shows a kapota instead of a paṭṭikā adorned with elephants and lions supporting a vari. Here this layer indicates the floor-level of the shrine, whereas in Coḷa koyils the vari has lost this function and becomes merely a decorative rim on the walls. We also note a vari on the Shore Temple in the same place as in the Dharmarāja Ratha (Zimmer, Vol. II, pls. 267 and 298).
6. Zimmer, Vol. II, pl. 270.
7. Idem, pls. 294-98; Chandra 1975, pl. 115; de Lippe, pp. 155-56, pl. 166, colour pl. J.; Srinivasan 1975, pp. 207-08, 227-29.
8. In this respect the Shore Temple resembles the monuments at Paṭṭadakal (A.D. 740 or vice versa (Pl. 6). Since the padma moulding is sometimes considered to be a Coḷa contribution it seems appropriate to mention its presence on the Pallava and Cāḷukya monuments, although here it is shaped in a rather unobtrusive way.
9. Chandra 1975, pl. 125; Srinivasan 1975, p. 239.
10. Soundara 1969, p. 49.
11. This remark may be true for images but not for the body of a temple. Comparing Pls. 1-4 with Pls. 5-6 it is evident that the Pallavas left less wall space unadorned than did the Cāḷukyas.

12. Soundara 1969, p.10. We have noticed this feature only over the porches and maṇḍapas. The kapotas of the vimānas on the contrary, show the steep profile, characteristic of the Pallava monuments. The first six features are referred to in Soundara, pp.12-14.
13. Idem, p.12. However, trellised windows are absent in the otherwise comparable temples at Biccavolu in the Eastern Cālukya tract (Pls. 10, 11 and 16).
14. A feature already noticed at Māmallapuram(see note 5).
15. Soundara 1969, pp.14 and 23.
16. Idem, p.18. However, there are several examples of round and octagonal roofs at Paṭṭadkal(Mallikārjuna) and Bādāmī (Makuteśvara, Mālegiṭṭi Śivālaya).
17. Idem, p. 40-41. The arpita hāra is also typical for Early Coḷa architecture.
18. Idem, p.43; Zimmer, Vol.II,pls.114-15, 120-21, 128-30;Kramrisch 1965, pl.69; de Lippe, pls. 103-04, 133.
19. Idem, p.44. However, pilaster-niches containing loose blocks carved with sculptures were also known (Durgā temple at Aihole, Mālegiṭṭi Śivālaya at Bādāmī, de Lippe, pls. 116 and 123).
20. Soundara 1969, p.46.
21. Idem, p.47; Gupte, pls.5,7-8,17,24-25,40-42 and 126.
22. Soundara 1969, p.47. The moment Gaṇeśa was accepted as a deity to be depicted in stone on temples, its image appears in each and every kūḍu frame(nāsikā arch) of the śikhara crowning the Shore Temple(Srinivasan 1975, p.228). This very small type of a representation of Gaṇeśa or Gaṇapati, occurs occasionally in the medallions which are part of makaratoraṇas. Gaṇeśa images at this place occur in buildings which are considered to be the oldest structural koyils in the Coḷamaṇḍalam(Tiruppalanam, Tiruvēdikkudi).
23. Soundara 1969, p. 42.
24. Cousens, p.20 and Pl. XXXII.
25. Idem, p. 53-54.
26. Ibidem; Soundara 1969, p.56, pls. III-VI and XII. According to Soundara Rajan (p. 52) the Makuteśvara at Mahākut is the earliest known Drāviḍa vimāna type in the Karnataka country dating from ca. A.D. 575. De Lippe dated the same building - without comment - in the early 7th century(p. 143, pls. 125, H). Soundara Rajan's attribution is based on an inscription on a loose pillar originally(?) in front of the (present?) Makuteśvara.
27. Cousens, pp. 35, Pl.VIII; Soundara 1969, pl.II; Gupte, pl.45.
28. Comparing this framework of a trellised window with for instance those shown in Pls.1-3 and in Fig.6, we must conclude that the Early Cālukyas realized the structural aspects of this purely decorative detail better than the Pallavas (cf. our appendix 3). The Coḷas were probably the first to design a niche with a lintel supported by pilasters, thus giving it the appearance of a structural instead of a ornamental feature.
29. Srinivasan, K.R. 1964, Vol.II,p.199.
30. Idem, pp.201-02. Cf. the Piravātaneśvara at Kāñcī(A.D.700-728), where Durgā, Mahiṣāsuraṃardinī and Gaḷalakṣmī occupy the northern and southern niches respectively.
31. Brown 1965, p.70.
32. Ibidem.

33. Rao, pp. 3-7; Kajendra Prasada, pp. 75, 90-92, 112-13, 130-31, 150-51, p. 17 and 34. Kramrisch 1965, p. 88-93; de Lippe, p. 183-84, 189-90. Sivarama (1961, p. 2) assumed an obvious influence of the Pallava tradition with probably some mixture of the *Caṅkya* and *Rāṣṭrakūṭa* exuberance of ornamentation. De Lippe pointed out that the *Rāṣṭras* at *Mamallapuram* may have inspired the concept of the *Vettuvankoyil*, whereas the trenching technique was that of the *Rāṣṭrakūṭas*. The luxuriant sculptural details, on the other hand, is typical of *Pāṇḍya* (p. 161). Remains the problem that the *Vettuvankoyil* which, is more over, unfinished is the one and only example of this "luxurious sculptural style, for it is hard to believe that the artists who were responsible for stark figures in *Pāṇḍya* caves (p. 177-81) designed and carved the *śikhara* (183). A comparative study of the sculptures at *Ellora* and *Kaṅguṃmalai* as well as of the profiles of the various buildings in the compound of the *Kaṅguṃmalai* at *Ellora* seems required. At least two explanations for the fact that the *na* is unfinished are possible. The *Caṅkya* (?) artists may have been temporary "on loan" and may not have been able to complete their work either because the unexpected death of the *Pāṇḍya* king who commissioned this *koyil* or because they may have underestimated the resistance of the rock to their chisels. At home they were used to tuff. Consequently, we are inclined to reject the theory that the Early *Pāṇḍya* sculptors were highly qualified artists dominating the southern style before the Early *Coḷas* came to power.
35. Soundara 1975, pp. 242-45; Idem 1978, pp. 105-07. Dhaky (1971, p. 271) seems to accept Soundara Rajan's views, however, without having been able to consult the most crucial photographs of among others the shrines at *Tirupattur* and *Nemam*. For, in 1971, Soundara Rajan's publication based on a conference paper of 1967, had not yet been published. De Lippe in his excellent survey of *medieval sculpture* strongly rejects the idea that the Late *Pallavas* influenced Early *Coḷa* art. On the other hand, he nowhere mentions a comparative *Pāṇḍya* contribution (pp. 170-71). He does recognize three other local idioms viz. that of the *Irūkkaveḷis*, the *Muttaraiyars* and the *Paiṇvettaraiyars* (p. 168) and he also mentions several times that certain motifs displayed at *Ṭaṇṇamangai* were copied from *Pallava* sculptures (p. 173).
36. Soundara 1975, p. 240; Idem 1978, p. 100.
37. The Shore Temple is built of a coarse granite heavily eroded by seawater. would not be surprised if the material of this monument (and of the others swallowed by the sea) would prove to be the rubble of the nearby caves and monoliths. This would have been an efficient use of the waste material.
38. Soundara 1975, p. 245; Idem 1978, p. 106; Dhaky 1971, p. 271; de Lippe, p. 39. Soundara 1975, p. 242. Idem 1978, p. 106, where he states that *condolones* *Pallava* pillars inspired the style of the *Coḷa* pillars.
40. Idem, p. 245. See also our note 34.
41. Ibidem. According to Dhaky (1971, p. 274) there is no evidence of *Pāṇḍya* influence.
42. Idem, p. 247.
43. Balasubrahmanyam 1971, pp. 108-37; Barrett 1974, p. 86.
44. Soundara 1975, p. 244; Idem 1978, p. 106, where he stated that the *Coḷas* had no access to a liberal supply of stone of good quality, for they lived in the east part of the delta. Elsewhere he said that a shrine from its plinth upwards to be built of the same material as that of the cult image (p. 66). However, *śiva* temples in the *Kaveri* area contain *lingas*. According to Soundara Rajan *lingas* ought to be of stone (p. 65). Consequently, the *koyils* commissioned by

- Aditya I had to be of stone also, independent whether or not this king was ruling the plateau country.
40. Sastri 1955, p.110. See also note 44. The location of Uraiyūr is unknown.
  41. Soundara 1975, p.244.
  42. *Idem*.
  43. *Idem*, pp.244-45; *Idem* 1978, p.107. See also Dhaky 1971, pp.266-67
  44. Soundara 1975, pp. 247-48.
  45. *Idem*, pp.296-97; *Idem*, 1978, p.14, where Soundara Rajan described the situation in which the vassals of the Pallavas and Pāṇḍyas, viz. the Muttaraiyars, Irukkuvels and Paḷḷuvettaraiyars were free to concentrate on building shrines whereas the three main forces, viz. the Pallavas, the Pāṇḍyas and the Coḷas were involved in war. This is a remarkable conclusion, for at that time, the Coḷas were merely vassals like the Muttaraiyars, implying that the first could also have been active in erecting koyils (dedicated to Śiva).
  46. Soundara 1975, p.251.
  47. *Idem*, pp. 252-55.
  48. *Idem*, pp. 249- 50.
  49. *Idem*, p. 259.
  50. *Idem*, pp. 252- 55; pp.260- 94; pp.299-300; Table IV. See also our appendix 4, which is a summary of the information given in these pages.
  51. See chapter four, paragraph 6. Comparing our Pls.17-18 with his pls. 136-37 the differences between the niches is evident.
  52. Soundara 1975, pl.141. A comparison of this illustration with our Pl. 35 clearly shows the difference between the ruin and the reconstructed shrine.
  53. *Idem*, pl.138.
  54. *Idem*, p. 279. We would have thought this sufficient reason to refute the notion that this monument belongs to the Irukkuvel style. Although Soundara Rajan's conclusion is apparently founded on the presence of an Irukkuvel inscription he felt that we should "...disabuse...notions, such as that all temples containing Coḷa grant or endowment inscriptions and found in the Coḷa country should *ipse facto* be Coḷa foundations" (pp. 248-249). If we substitute the word "Coḷa" by "Irukkuvel" we can only conclude that he forgot his own advice in his eagerness to prove the dominance of the Irukkuvels over the Coḷas.
  55. *Idem*, p. 256 and pl. 132 (instead of pl. 131 as mentioned in his text).
  56. *Idem*, pp. 252- 53. Since we have not visited this monument we have to go by Soundara Rajan's illustrations which are of good quality. The vari and the pañjaras are partly visible. Comparing this "Early Pāṇḍya" monument with a number of "fully developed" "Irukkuvel" shrines at Koḍumbālūr, Kīlaiyūr (pl.139) and Tiruchchendurai (pl.140), it appears that both components are absent in these last three temples.
  57. *Idem*, p. 295.
  58. *Idem*, p. 248.
  59. *Idem*, p. 295.
  60. Jouveau, p. 39. This suggestion was accepted by Gravelly (p. 17).
  61. Sastri 1955, p. 697.

67. Balasubrahmanyam 1966, p. 256.
68. Barrett 1974, p. 17. For three reasons we excluded from our general discussion the most recent proposals of Soundara Rajan in which he divided the Early Coḷa period in three phases, viz. A.D. 871-907, A.D. 907-980 and A.D. 985-1014 (Soundara 1978, pp. 113-14). In the first place, his views regarding the building activities in the second half of the 9th century proved to be very inaccurate, thus eroding the credibility of his first phase (cf. our pp. 48-58). In the second place, he does not mention the temples belonging to each period. This makes it impossible to check whether his views with regard to the second and third phase are correct. In the third place, the number of criteria for each and every phase is small and/or vague, or wrong. For instance, three out of seven distinctive factors of the post-Parāntaka stage occur on shrines built in the 9th or first half of the 10th century, viz. the pierced windows, the cyma recta moulding between upāna and jagatī and the rearing vyālis or nāṭṭiya-peṇs on palagais (pp. 111-12) at Tiruvādūtūrai (A.D. 910-945), Tiruchchātturai (A.D. 883) and Kumbakonam (A.D. 885-910) respectively. The phase-characteristics of the first 36 years are restricted to the base and described as an efflorescence, out of an amalgam (pp. 108-09, 113); those of the next 73 years as a *finite* crystallisation (p. 113), characterized, though, by an *ambivalent* promotion of two existing types of base, an *occasional* occurrence of an upapītha, introduction of a kumbha-latā (pp. 109-10)—which did not occur prior to A.D. 980 — an addition of a vedi or applique parapet (vari) interrupted by niches (p. 109) — though experiments with the vari started as early as A.D. 870. It appears already at Nemam in the temple attributed to A.D. 860-75 by Soundara Rajan (cf. Soundara 1975, p. 300). Then five years apparently do not belong to any phase. The third period displays the individualistic Coḷa model characterized, among others, by stambha-pañjaras (a term which does not occur in his glossary pp. 173-88, neither does stambha nor kumbha nor kumbha-latā for that matter) so we do not know to which part of the temple it refers (p. 111).
69. Sastri 1955, pp. 693- 94; pp. 703- 05.
70. The terms antarāla and ardhamāṇḍapa are used alternately by Sastri (p. 704).
71. Cf. Soundara 1978, pp. 108- 09 in combination with aspects 12 and 22.
72. Shukla, p. 514.
73. Harle, 1958<sup>1</sup>, p. 97, note 13.
74. Ibidem.
75. Harle, 1958<sup>2</sup>, p. 4.
76. Ibidem.
77. Harle 1963, p. 82. In addition he mentioned the appearance of pavillions on the temple walls. However, he also stated that this innovation is already present in Pallava structures. To call them typical Coḷa innovations therefore seems incorrect (p. 9).
78. Srinivasan, P.R. 1958, p. 69.
79. Idem, pp. 80-81; Soundara 1978, p. 110.
80. Srinivasan, K.R. 1958, p. 138; Soundara 1969, p. 19. As this element is already present in Cāḷukya temples it is not a typical Coḷa feature.
81. Soundara 1978, pp. 109-10, at least if his term kumbha-latā covers our kumbhapañjara which may not be the case.

82. Brown, p. 85.
83. Sivarama 1955, pp. 12 and 16.
84. The reign of Parāntaka I was long in comparison with those of the other early Coḷa kings. It covered nearly half a century (A.D. 907-955). High regnal years of a "Parakesari" can therefore, only refer to him. Similarly, high regnal "Rājakesari" records refer to Āditya I, for the only other Rājakesari who ruled for a considerable period, viz. Rājarāja I, is usually given additional epitheta.
85. Balasubrahmanyam 1971, p. 258.
86. Balasubrahmanyam 1966, pp. 256- 58.
87. Balasubrahmanyam 1971, p. 269.
88. Idem, p. 270.
89. Ranga I, p. 423, SII no. 677/1904. The oldest inscriptions at Tirumullaivāyil dated in the third regnal year of Rājendra I are not engraved on the walls of the vimāna, but on the pillars of the mukhamandapa. See also Balasubrahmanyam 1971, pp. 190-91. This indicates that the vimāna might have been renovated.
90. SII nos. 234-267/1929. The earliest inscription dates from the first regnal year of Rājendra I.
91. Barrett 1974, pp. 66-67.
92. Balasubrahmanyam 1971, p. 264.
93. Barrett, 1974, p. 120.
94. Ibidem. See also Dhaky 1971, p. 271; de Lippe p. 171, who refers to Barrett.
95. Barrett 1974, p. 45. See also our note 34, p. 80.
96. Idem, pp. 90-91, 121.
97. Idem, p. 41.
98. Idem, pp. 27-32, 126- 30.
99. Idem, pp. 32-34.
100. Jouveau, pp. 39-41.
101. Barrett 1974, p. 34.
102. See our appendix 6.
103. Barrett 1974, pp. 35-37, 131-33.
104. Idem, p. 39-41, 134-37.
105. Balasubrahmanyam 1975, pp. 331-33.





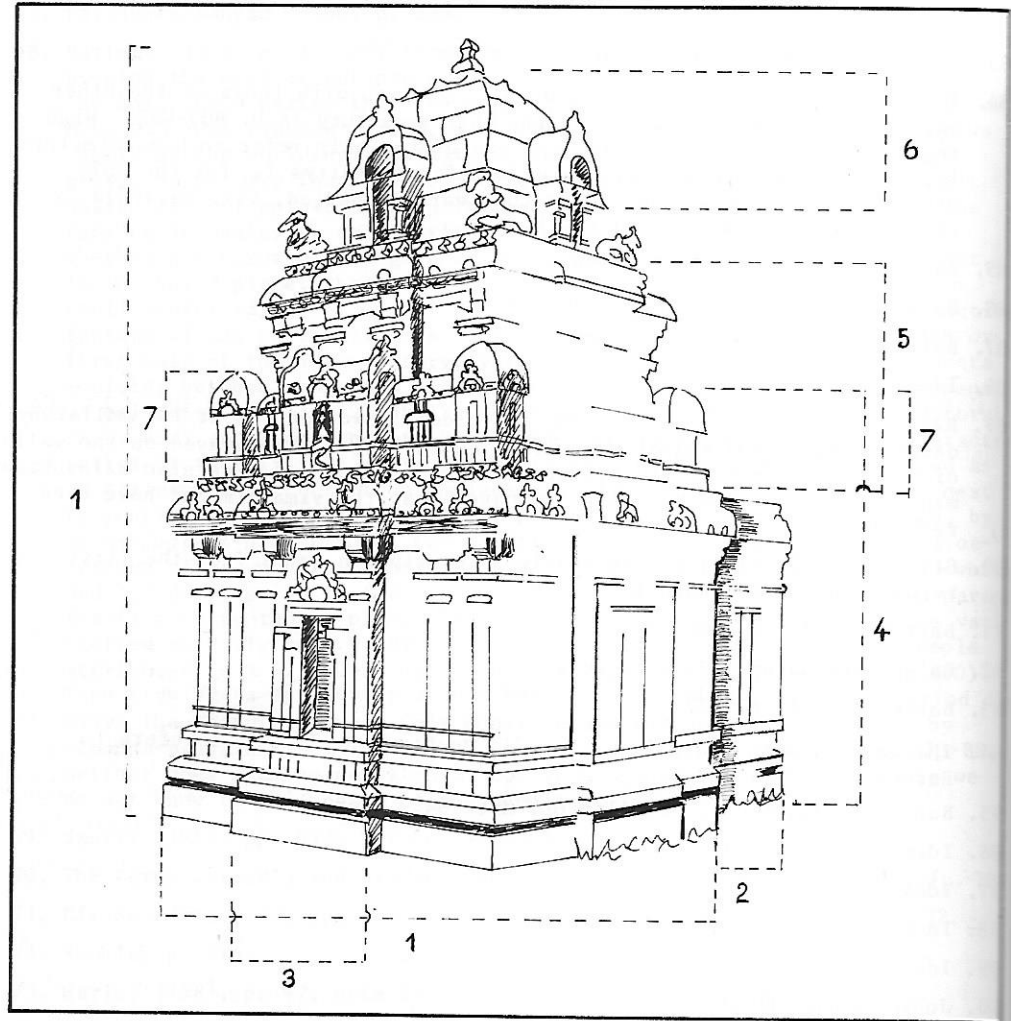


Fig. 21 Early Coḷa dvitala and its main architectural features discussed in chapter three.

1. Vimāna, South-west view.
2. Ardhamandapa with devakoṣṭha.
3. Central bay with devakoṣṭha and makaratoraṇa.
4. First tala.
5. Second tala.
6. Śikhara standing on a grīvā or neck.
7. Hāra consisting of karṇakuṭīs, śālā (with niche) and karṇakuṭīs; in between śālā and karṇakuṭī a connecting wall decorated with a pañjara.

(Drawing based on a photograph of the Mucukundeśvara at Koḍumbā)

## Chapter three

### The development of the vimāna and ardhamanḍapa in the Coḷamaṇḍalam between A.D. 850–1044

#### Distribution of the variants of the vimāna

##### Typology.

It seems a correct procedure to start — like the sthāpatis or architects — with the ground-plan of a sanctum excluding the preliminary phase in which the priest and the astrologer played an important role, for this aspect lies outside our competence. In our opinion the ground-plan of a vimāna or sanctum should be studied in relation to the total concept of the building. The planned height is of great importance since the division of the walls by means of pilasters should also be related to height and ground-plan.<sup>1)</sup> These statements deserve an explanation.

Let us start with the simplest form of a ground-plan: the square without recesses in combination with the smallest possible number of pilasters, viz. four. The height of such a building can only be an ekatala as appears from Fig. 22a, (p. 86). The two central pilasters extend visually upto the grīvā or neck of the śikhara. The remaining space on the grīvā-platform can be used for the representation of the vāhanas of the enshrined deity, usually nandis, or, when by way of exception it is a Viṣṇu temple, garuḍas. The second form in which the ground-plan of a shrine with four pilasters can occur has a projecting part in the middle of each wall. Although a niche is not necessarily included in the square layout (1), a shrine with a projecting part (2) always has a niche, since the protruding section is meant to serve as a tray on which an aspect of Śiva or Viṣṇu is presented to the observer. When a temple wall has six pilasters producing five planes, more layouts are possible, as indicated in Fig. 22b (p. 86), but the height remains the same, and the building must now be a dvitala. The lines of the

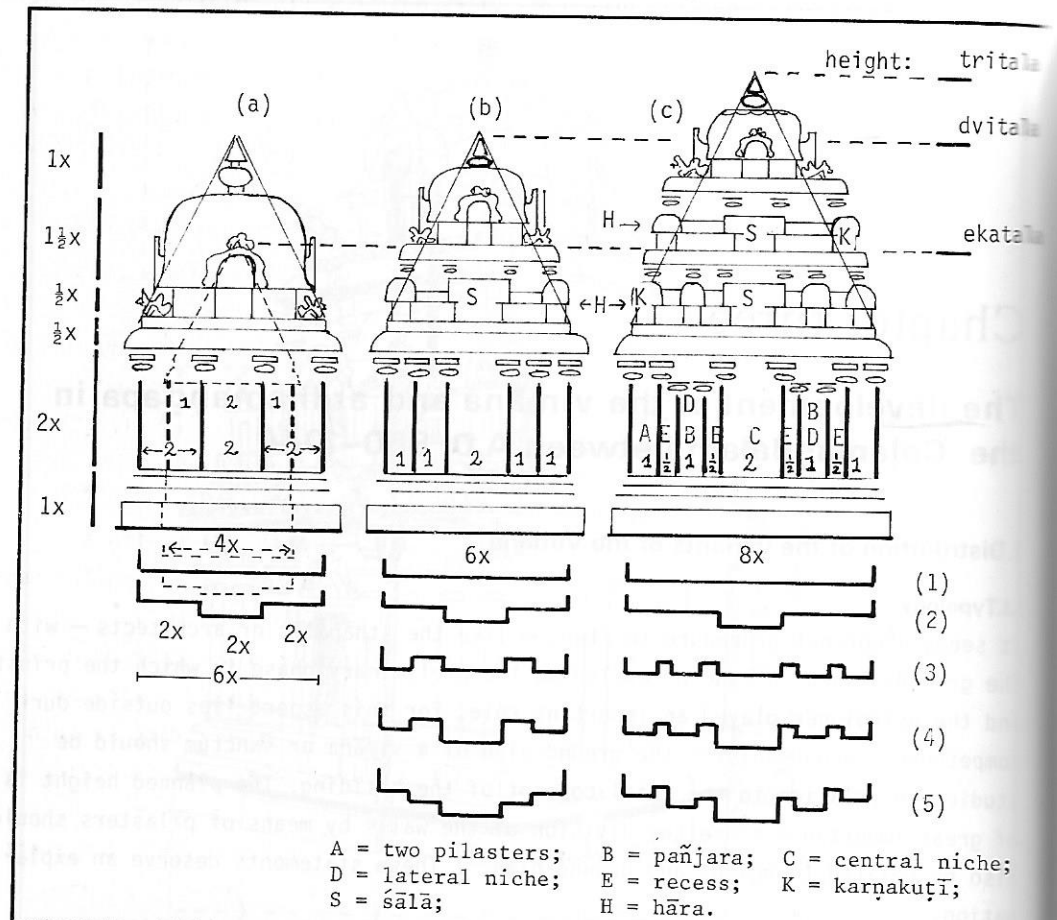


Fig. 22. a) Example of an ekatala (Type I); b) example of a dvitala (Type II); c) example of a tritala (Type III); their ground-plan variants.

two outer pairs of pilasters can be extended to the karṇakuṭīs on the first and only hāra. The two middle pilasters are crowned by a śālā in the central part of the hāra. The space between the kuṭīs and the śālā is usually meant for decorative purposes. From this figure it should be evident that adding more talas will disturb the balanced, pyramidal shape of the superstructure. A tritala must have more than five planes in its first tala. This can only be achieved by increasing the number of pilasters as indicated in Fig. 22c. It is done either by way of loose pairs of pilasters (A), or with pañjaras (B) or with niche-pilasters (C). The vertical extension of the pilasters now allows a hāra on the first tala, which shows the following sequence: karṇakuṭī-kuṭī-śālā-kuṭī-karṇakuṭī. The hāra of the second tala then consists of the series karṇakuṭī-śālā-karṇakuṭī. Figs. 22b

and 22c clearly show that the number of talas has no rigid relation to the form of the ground-plan, since five alternatives are indicated. The number of recesses, however, are fixed: a divitala never counts more than two recesses, a tritala never more than four. If the simple, uninterrupted ground-plan(1) is chosen, then all heights are possible, depending on the number of pilasters. This is why we decided to distinguish only three main types in the layout of a temple and not five, as was done, for example, by Barrett.<sup>2)</sup> Our criterion is the number of pilasters related to the height. Within these three main types variations based on the number of recesses occur. We can, therefore, distinguish the following layouts (Fig. 23):

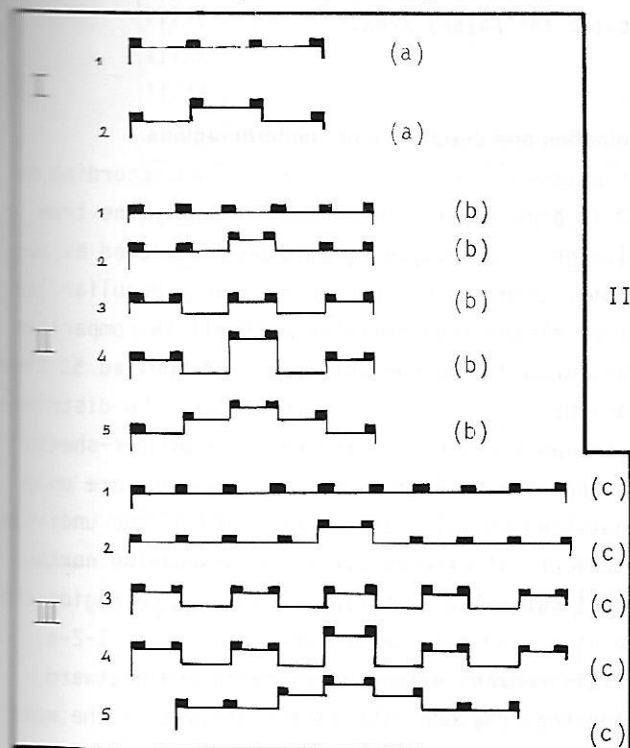


Fig. 23. The five ground-plan variants arranged according to the height (I-III), shape of the ground-plan (1-5) and the number of kālīs (a-c).

I. A ground-plan implying an ekatala, each wall having four pilasters(a). Its variants are:

1. a ground-plan without any projection;
2. a ground-plan with a protruding section in the centre of each wall.

II. A ground-plan implying a divitala, each wall having six pilasters(b) dividing it into five planes. The following variants may occur:

- 1.a ground-plan without recesses or projecting parts;
- 2.a ground-plan with a protruding section in the centre of each wall;
- 3.a ground-plan with two recesses in each wall;
- 4.the same as 3, but now the part between the recesses juts out;
5. a ground-plan in which

the part of each wall between the second and the fourth pilaster protrudes, while the section between the two central pilasters juts out even further.

III. A ground-plan implying a tritala, each wall having eight or more pilasters(c). The lay-out may assume the following forms:

1. a ground-plan without recesses or projecting parts, comparable with

- variants I.1 and II.1;
- 2. a ground-plan with one projecting section in the centre of each wall, comparable with variants I.2 and II.2;
- 3. a ground-plan with at least four recesses in each wall; the protruding sections are lying in a straight line as in the case of variant II.3;
- 4. the same as 3, but now the part of each wall between the two central recesses juts out as in II.4;
- 5. a ground-plan in which the part of each wall between the two, four or six central pilasters extends even further as in II.5.

Other combinations consisting of a cross-breed of these pure types are anomalies occurring, moreover, outside the Kāverī area.

### **1.2. Distribution of the variants; determination and description of uniform regions.**

A first impression of the distribution of Coḷa temples classified according to the categories shown in Fig. 23 is provided in Fig. 24a. In it only the true variants are indicated, for all other combinations should be considered as aberrations due to renovations, demolition of the upper parts, or a peculiar local idiom (Fig. 24b). The number of eleven true tritalas is small in comparison with the 51 ekatalas and dvitalas. Ground-plan variant - 2 - was applied 52 times showing a preponderance over variant - 1 - with only 27 examples. The distribution of true variants is shown in map 5 which is based on the computer-sheets of the aspects 33, 36 and 39 in appendix 5. Regions of true variants are only found in the Kāverī area. The outstanding I-1-a area lies south of the undivided Kāverī, i.e. west of the Grand Anicut. It extends via a zone — running north-south — of the slightly more complicated I-2-a temples into a third region characterized by ekatalas. Here we also find the predominant combination I-2-a. Finally there are two large dvitala regions extending eastward and westward along the banks of the Kāverī and the Coleroon. The II-2-b variant is the most common here. The tritalas and taller buildings are spread over a vast area. Consequently map 5 does not show a specific region of these types of monuments.

In the five uniform regions just mentioned, a number of temples were not designed according to the type of layout predominant in the area in which they occur. These are indicated on map 5 as circles and are listed in Table A (p.90). They are probably either younger or older than the koyils in the various subregions, for they are anomalies in the otherwise even distribution-patterns. In the next paragraph the chronology of these regions will be discussed.

District Type	Taṅjāvūr	Tiruchi- rappalli	South Arcot	Palar region	total
I-1-a	7	11	1	5	24
I-2-a	20	5	2	-	27
II-2-b	10	9	4	2	25
II-3-b	5	2	1	2	10
II-4-b	10	3	1	2	16
II-5-b	1	-	-	-	1
III/V-1-c	-	-	1	2	3
III/V-3-c	-	-	-	4 <sup>1)</sup>	4
III/V-4-c	-	-	-	1	1
III/V-5-c	1	1	-	1	3
Total	54	31	10	19	114

Fig. 24a. True variants distributed per district.

I-1-b	-	-	1	2	3
I-2-b	-	2	4	2	8
II-1-a	-	-	-	1	1
II-1-b	-	-	-	2	2
III-1-b	-	-	-	1	1
III-4-b	1	-	1	-	2
Total	1	2	6	8	17
Omissions <sup>2)</sup>	3	2	8	3	16

Fig. 24b. Aberrations and omissions distributed per district.

- 1) Three of which are apsidal or "elephant's backs".
- 2) Sixteen monuments were not included in this figure because it could not be ascertained whether the height of their superstructures has remained the same.

The situation in South Arcot is entirely different, since no clusters can be formed based on the presence of true variants. The most frequent anomaly in this district is an ekatala with six pilasters on each wall, indicated as I-2-b, a type, which is unknown in the delta proper. The shrines at Jambai, Erumbūr, Sāhūr and Tirunāmanallūr (indicated as J, E, B and T on map 5) are the only vimānas with four pilasters in this area. The last three are, moreover, the only true



Table A.

Anomalies in the distribution-pattern in the entire Kāverī area on map 5.

Name of the village	type of vimāna	locational context
Nirpalani	II-2-c	I-1-a
Nārttāmalai	III-5-c	
Chittūr	II-2-b	
Tirukkaṭṭalai	II-2-b	
Śōmūr	I-1-a	II-2-b
Virālūr	I-2-b	
Tudaiyūr	I-2-a	
Lalgudi	I-2-a	
Kumāravayalūr	I-2-a	
Perungudi	I-1-a	
Uyyakkōṇḍān Tirumulai	(II)-1-a	
Śendalai	II-1-a	I-2-a
Gōvīndaputtūr	I-2-a	II-(2,3 or 4)-b
Tirukkalittattai	I-1-a	
Kōyildēvarāyanpēṭṭai	II-2-a	
Puḷḷamaṅgai	III-4-b	
Puñjai	I-1-a	I-2-a
Tirumiyachchūr	I-1-a	
Tiruvārūr(Wan.)	I-1-a	
Tirukkoḷḷikkādu	I-1-a	
Ramanātha Kōyil	I-1-a	
Pateśvaram	II-2-b	
Kuttālam	II-2-b	
Ānangūr	II-4-b	
Kuhūr	II-4-b	

ekatalas of the type I-(1 or 2)-a and are therefore marked on the map as Coḷa. The true Coḷa dvitalas at Kṭṭūr, Kiḷiyanūr, Grāmam and Vriḍdhāchalam (K, Ki, G and V respectively), all belonging to category II-2-b, are indicated in the same way, as is done for the true II-(3 or 4)-b shrines at Tiṇḍivanam (Ti) and the two monuments as Dadapuram(D). All other temples show aberrations in their layout. These will be discussed later. The distribution of the ten Coḷa buildings in South Arcot is such that regionalization on the basis of a combination of characteristics is not possible. If, however, we look at the main deviating types I-2-b, (I or II)-1-b and II-2-a excluding the Coḷa variants, we discover a core consisting of shrines with the simple, square ground-plan variant -1-. This area is surrounded by a shell characterized by the -2- variant, while the whole region is bounded in the north by an area filled with temples showing the -3- or -4- layout.

In the old Pallava territory the distribution-pattern is chaotic. The typical Pallava solution for small shrines was the ekatala or dvitala on a simple, square base: I-1-(a or b) and II-1-b. The combination I-1-a is obviously a fringe phenomenon in the east and west of the Palar area (map 5). The large number of tritalas or even taller buildings in this region is striking. Four of these were definitely built by the Pallavas and are located near the Palar. In view of the distribution of the I-1-a and II-2-b types — the first at the borders, the second in the heart of the former Pallava territory — we are inclined to believe that the stylistic impulse in this region began at the boundaries and moved inward slowly and that consequently the "true" Coḷa monuments near the borders are older than those in the central part of this area. The last remark can only be understood when we know the sequence in which the variants came into being.

### III Chronology of the uniform regions.

We start with a discussion of the Kāverī region, since we assume that it was here that the new variants were created. The dates in map 5a and Fig. 25(p.92) are based on the earliest inscription found on a particular temple, at least according to Balasubrahmanyam and Barrett.<sup>4)</sup>

The earliest records are found in the I-1-a area of the Muttaraiyars. This form was applied already in A.D.864 and possibly long before that. Around A.D.875 a differentiation occurs. The only I-2-a and II-2-b vimānas were built near Tañjāvūr (no. 7 and nos.4-5 on map 5A respectively), while some ten years later the two II-(3 or 4)-b variants of the monuments at Tillaisthānam and Tirumaiyārū seem to have been realized (nos.2 and 3 respectively). The dvitalas continue to be built during the whole period covered by our investigation and until A.D.970 no further development of the vimāna can be observed; rather a return to older forms seems to have taken place. The I-2-a form becomes dominant at the time the vimāna at Kōnērīrājapuram in the eastern delta was built (K on map 5A). This by then old-fashioned style declined even further into the I-1-a type represented by the four temples lying in a small strip along the Puñjai-Tirukkoḷḷikkāḍu road (P and Tk on map 5A respectively). The coastal shrines are dvitalas but their ground-plans vary. The tritala, tried out on the beautiful Brahmapurīśvara at Puḷḷamaṅgai (P on map 5A), was never repeated, for the only other tritala in this area — located at Tiruvārūr — was built according to other principles. It represents a true type: III-5-c and was raised ca. A.D. 990, whereas the tritala at Puḷḷamaṅgai is a III-4-b vimāna constructed almost a century earlier.

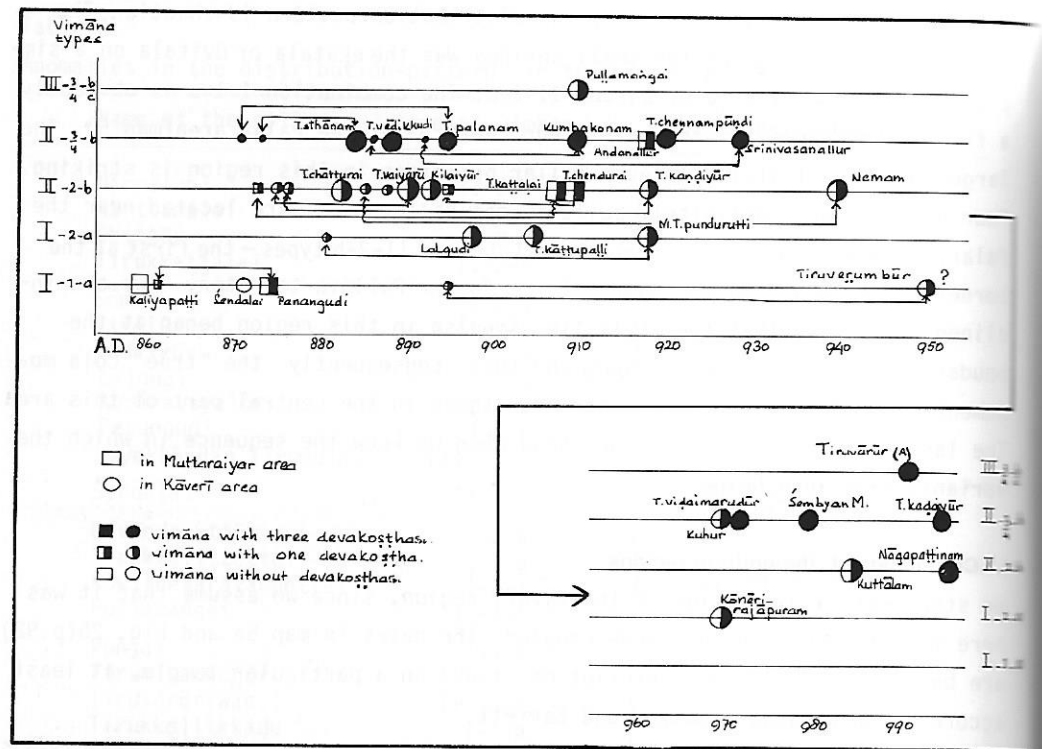


Fig.25. Chronology of the vimāna variants in the Muttaraiyar and Kāverī areas.

□ ○ dating according to Barrett.  
 □ ○ dating according to Balasubrahmanyam.  
 (an arrow indicates a disagreement between Barrett and Balasubrahmanyam).

In chapter one the hypothesis was developed that height is a variable dependent on time (4.2. and 4.3. pp.16-19), if limited to granite temples. In Fig. 25 this has been plotted on a vertical "development-axis" against a horizontal "time-axis". The monuments located in South Arcot and the Palar region were not included, for they show up better in a separate figure (Fig. 27, p.96). Along the vertical axis an additional presupposition was worked out, viz. that the -2- variant succeeds the -1- variant and is followed by the more elaborate -3- and -4- layouts. Barrett also had this idea while drawing up a chronological arrangement of the Coḷa temples, but it does not produce convincing style periods: nearly all types occur in each of his three stylistic phases (p. 70)<sup>5</sup>. So this second criterion does not seem valid and the chronology of shrines based on it should be revised. Before doing so we want to make clear why this is necessary. A discussion of the oldest Coḷa monuments listed in Fig. 26 will illus-



the monuments at Tiruppalanam and Tiruvārūr. It is, in fact, the -5- variant (Fig. 23, p.87). The first Coḷa architects could choose from all these examples. It seems likely that the Muttaraiyars only built according to the I-1-a plan. It can be imagined that an ambitious king like Āditya I would not be satisfied with this simple composition, for by this time he already ruled over a rather large area, including the important town of Tañjāvūr. So he may well have ordered his sthāpatis to prove their creativity by designing new and more impressive types of temples. It is even possible that he commissioned them to construct the seven shrines mentioned in the caption of Fig. 26: the intriguing Sapta Sthānas (appendix 7). By doing so he himself created a kind of playing-ground on which his architects could try out their ideas. Since four out of these seven monuments are already taken by both Balasubrahmanyam and Barrett to be examples of the earliest koyils (Fig. 25, p.92), it seems valid to consider the whole group as a unit. Assuming that they were all built within a short period, they will naturally show a rich variety in form and detail, the more so because they are located at short distances from each other.

The Sapta Sthānas can be divided into three "groups": three shrines with a II-2-b form, each crowned with a round or square śikhara; one ekatala of the I-2-a type with an octagonal platform and the remaining three which may for convenience sake be characterized as II-(3,4 or 5)-b vimānas, also showing variation in the shape of their śikharas. This increases the impression that the Sapta Sthānas indeed functioned as a training ground and that the artists fearlessly ignored the dogma of the supposed, regional preference for the square śikhara, which is found in the nearby Muttaraiyar area.<sup>6)</sup>

Fig. 26 (p.93) illustrates the chronologies proposed by Balasubrahmanyam (1) and Barrett(2). A third column has been added in which the order is arbitrary(3). The arrangement based on either inscriptional evidence(1) or on the development of the ground-plan(2) does not play a role in the sequence of the last column. This third column tells us as much or as little as the first two. Therefore, on grounds of the spatial and historical pattern (maps 5 and 5A) the possibility that the I-2-a and II-2-b vimānas were only introduced in the delta after the completion of the Sapta Sthānas should be considered. This would imply that a new period of temple architecture probably started around A.D. 890. We now have to see whether this assumption can be supported by dated developments in the outer provinces.

Turning our attention to the monuments in South Arcot we are confronted with two problems. The first question that arises is : how fast did this sudden change in temple architecture penetrate into the other areas and how far did this

influence of the new master-builders reach? Was South Arcot the tray on which these novel ideas were presented and from which the architects in the Palar region - possibly enriched with an idiom of their own - could make a choice, or did South Arcot remain the backwater it had been during the reign of the Pallavas?

The second problem is : where did the new developments start and in which direction did they invade the "unspoilt" countryside. These questions can be answered partly by comparing the data on maps 5, 5A and in Fig. 27, p. 96). The distribution-pattern in South Arcot has a suggestive force. We are inclined to interpret it as an illustration of the hypothesis that the new ideas were spread from an old "core" as their starting-point - in this case an area with the simple, square koyils - by architects who were building at first only stone shrines with a -2- layout and later on monuments with the more complicated -3-or-4- ground-plan. This reasoning seems to be confirmed by the surviving monuments with dates based on foundation inscriptions or on other records. The oldest temple in this district is located in the "core" at Tiruvāmat-tūr (Tv on map 5A). It can be dated ca. A.D.913. The I-2-a koyils at Erumbūr (E) and Tirunāmanallūr (T) respectively to the south and north of the old "core", were built in A.D.935. Between A.D.943-980 shrines of the II-2-b types were constructed at Kīlūr and Vriddhāchalam (K and V respectively on map 5). The monuments at Dadapuram (D), located north of the -2- area, were financed by members of the royal household in ca. A.D.1006.

Anomalies in this pattern are the koyils at Bāhūr (B) and Tiṇḍivanam (Ti). Both shrines are an untimely appearance and out of place. The I-1-a koyil at Bāhūr dated ca. A.D.965 is an anomaly in the -2- region. The II-3-b vimāna at Tiṇḍivanam, although properly located in the -(3 or 4)- zone, is dated A.D.960 and therefore an anomaly in time, for a sequence in a style development running from II-2-b via I-1-a to II-3-b is unlikely. Both shrines are situated in the "war district" since Parāntaka I had his head-quarters here during his struggle with the Rāṣṭrakūṭa king Kṛṣṇa III. So, perhaps both monuments should be considered anomalies in both space and time due to the war.

Although it can be concluded from the above that Early Coḷa influences must have been felt in South Arcot, the process was definitely slow. Between the first occurrence of a I-2-a vimāna in the delta and its appearance in South Arcot some 50 years elapsed (cf. Figs. 25 and 27 on pp.92 and 96). The II-2-b variant took even longer to be realized in the temple at Grāmam dated ca. A.D.943. The II-1-b koyil at Tiruvāmat-tūr founded in A.D.913 resembles Pallava monuments and seems to fill the gap between the end of the Pallava period and





Firstly, there is obviously a strong preference for tritalas in the north after A.D. 1000 (Fig. 27), which indicates a continuation of Pallava influence, since the tritala was never popular with the Early Coḷas. This influence can also be observed in the existence of many temples with the simple, square layout. Secondly, after the Coḷas had copied the II-3-b type from the Pallavas, the enthusiasm for this specific form waned till the reign of Rājarāja I when again a temple was built with this layout, viz. that at Tiruvadandai raised after A.D. 1000. The Somanātheśvara at Mēlpādi was designed shortly before A.D. 1000 and represents the first II-2-b koyil in the Palar area. Apparently, this variant needed a hundred years to bridge the distance between the centre of its origin and this town situated on the border of the Coḷa empire.

Summarizing the above we may draw the preliminary conclusion that the Coḷa religion starts ca. A.D. 850 somewhere south of the undivided Kāverī in the form of I-1-a vimānas. This type was temporarily replaced by dvitalas which were popular in the Palar region and the area where the Pallava and Cāḷukya idioms overlap. The II-(3,4 or 5)-b temples of the Sapta Sthāna group represent the subsequent elaboration. In combination with the original Muttaraiyar type, these complex dvitalas were then soon reduced to the smaller variants I-2-a and II-2-b, probably due to Muttaraiyar influence. These forms, so characteristic of the central Coḷa area, reached the outer provinces only after considerable delay and without much conviction. In South Arcot the II-3-b combination remained unpopular till the construction of the shrine at Tiṇḍivanam. The tritala finally, is a form which the Coḷas only dared to apply in the Acaleśvara at Tiruvārūr. This confirms our impression that experiments with ekatalas and dvitalas went on for at least a century before a reliable design and technique for the construction of large, granite buildings was discovered. Fig. 28 represents this course of events.

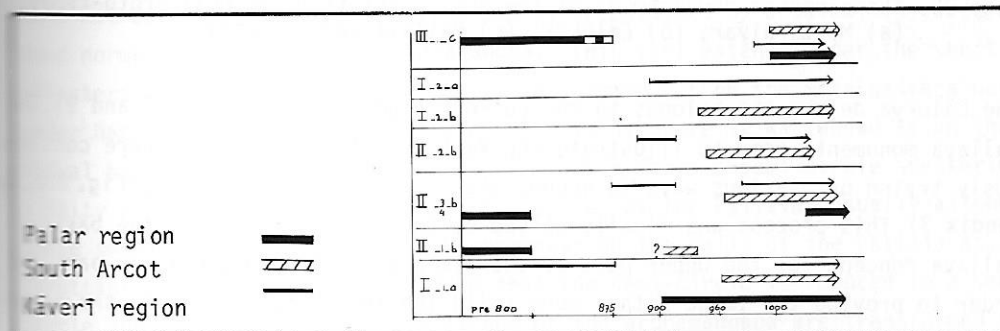


Fig. 28. Approximate introduction and disappearance of the vimāna variants.

## 2. Distribution of the temple variants based on the number of devakoṣṭhas per vimāna wall

### 2.1. Introduction and definition.

Most monuments covered by our survey have niches which can be defined as follows:

a niche is a rectangular recess in a wall, flanked by pilasters which are shorter than the others and coped by a lintel which rests on two short vira-kaṇṭhas. The floor of the niche coincides with the floor of the building, i.e. the paṭṭikā. The pilasters are also standing on this floor. The niche is crowned by a makaratorāṇa, placed between the uttira and the lintel.

Because a niche is usually meant to accomodate the image of a deity (deva or devī) it is called a devakoṣṭha. Although this type of niche is very common, there are exceptions, especially in the small area north of Tañjāvūr. Here we are confronted with cut-out niches, the absence of makaratorāṇas and a varying number of niches in the wall of either the vimāna or the ardhamāṇḍapa. This is indicated in map 6. From this map the conclusion can be drawn that in general the Coḷas preferred to build shrines with one niche in each temple wall, i.e. one niche in each vimāna wall and one in each ardhamāṇḍapa wall. The Muttaraiyars, on the contrary, seem to have had a strong preference for shrines without devakoṣṭhas. They carved out their deities in blocks placed directly under the kūdu of the śikhara (Fig. 29a, Pl. 17).

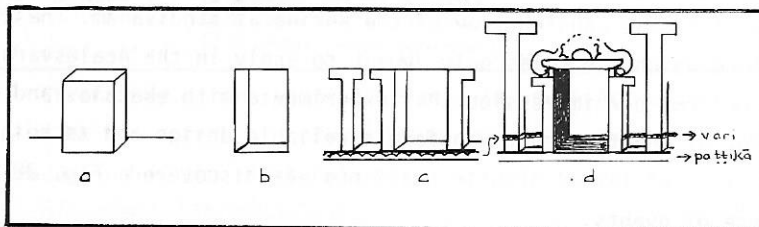


Fig. 29. The supposed development of the devakoṣṭha from regional proto-types. (a) Muttaraiyar; (b) Cāḷukya; (c) Pallava and (d) Coḷa.

The Cāḷukya devakoṣṭha belongs to the cut-out type (Fig. 29b, Pls. 5 and 9). The Pallava monuments seem to illustrate the fact that their sthāpatis were continuously trying out various ways to accomodate a deity in all its glory (Fig. 20c, appendix 3). This process was finally solved by the Coḷas who adapted the basic Pallava concept for the upper part of the niche and changed the lower part in order to provide the image with a more solid footing (Fig. 29d). As to the number of niches, the concept of one niche in each wall of an ardhamāṇḍapa, as for in-

stance in the Sundara Varadarāja Perumāḷ at Uttaramallūr, found favour in the eyes of the Coḷa artists, for this type of ardhamaṇḍapa starts to appear in almost the entire Kāverī region. So it looks as if the sthāpatis of the first Coḷa shrines could not make up their minds as to what type of niche to design in the absence of any previous standardization and which number of niches was the most satisfactory. Since, even in the eyes of the modern scholar, the Sapta Sthānas seem to display this hesitation, we believe that they are the oldest examples of the Early Coḷa style. In the next paragraph we shall deal with this point more extensively. Here we shall try to determine the role of the late Pallava monuments in order to show that indeed one architectural problem remained unsolved.

Returning to map 6 we notice that the oldest Pallava buildings (appendix 3) were carved out or constructed without actual niches. Some are located at Māmalapuram and date from before A.D. 728, the year in which the reign of Narasiṃhavarman II, Rājasimha ended, although the probably older, unfinished monolith, called Valaiyaṅkuṭṭai, may be regarded as the first representative of a vimāna adorned with short niche pilasters. Later shrines, all built before A.D. 846 at Kāñcī and Uttaramallūr, are marked by experiments with niches in the walls of the vimāna and the ardhamaṇḍapa. Especially the large monuments in the latter dating from Dantivarman's reign (A.D. 796-846) are interesting, for they are the last temples with niches before the koyils at Tiruttāni (Tt) and Brahmadēśam (B) were constructed (Pl. 70). These two shrines are usually attributed to ca. A.D. 880-900 and are considered to be either representatives of a transitional phase or already Early Coḷa. Since they are both squares without recesses, they do not possess a characteristic Early Coḷa layout. The vimāna at Brahmadēśam is a tri-tala, that at Tiruttāni is crowned by an apsidal śikhara. These two features are not typical Early Coḷa either (cf. maps 5 and 12). However, when studying the appearance of their niches carefully, it becomes clear that they still belong to the Pallava idiom. The floor of their niches is still at least a few centimetres higher than the paṭṭikā and is accentuated by a so-called vari, a band normally decorated by a padmabandha. This vari extends under the short pilasters as well. This concept was already tried out on the Mātāṅgeśvara built under Nandivarman II, Pallavamalla (A.D. 732-796), where it was added as an individual base of the pilasters. The makaratoraṇa forms a semi-circle sheltering a deity seated comfortably in that wide space, as the Pallavas usually allowed these small figures to do. The makaratoraṇas on the walls of the ekatala at Tiruttāni are different in the sense that the semi-circle is reduced to a small circle and the makaras above the niches of the ardhamaṇḍapa are transformed into birds. None of these motifs are found on the shrines considered to be the oldest

in the delta (appendix 6), so we may safely assume that this monument also belongs to the Pallava style, be it to its final phase. Two other vimānas with cut-out niches are located at Takkōlam (Ta), not far from Kāñcī and at Veḷachchēri(V) on the coast south of Madras. The former is a II-3-b vimāna of which the walls and superstructure are of brick. This combination is definitely not Early Coḷa, since Āditya I boasted that he constructed buildings in granite instead of in brick and wood. The combination of a granite adhiṣṭhāna with a brick superstructure was quite common in the Pallava area as the large monuments at Uttaramallūr still prove: the Sundara Varadarāja Perumāḷ, the Kailāsanātha and most probably the Vaikuntha Perumāḷ as well, for its granite base survives, though its brick superstructure has apparently collapsed. The shrine at Veḷachchēri is supposed to date from the days of Gaṇḍarāditya, i.e. from ca. A.D.954. With its strange niche supported by a "footboard vari" above the paṭṭikā — slightly wider than the niche itself—and its ribbed broad podigāṁ, it resembles the temple at Takkōlam. In case this date is correct, this small ekatala with its square śikhara would be contemporary with the far taller and more complex vimānas built in the middle of the 10th century, turning it into an anomaly in both space and time. Finally, there is an Amman shrine in the compound of the Vedapurīśvara at Tiruvanniyūr. The practice to erect a temple for Pārvatī, north of the main shrine became popular only in the days of Rājendra I. The oldest inscription on the walls of the building in question dates from A.D.1017, the year in which this koyil may indeed have been constructed. Its archaic "footboard vari" and consequently Pallava niche, can only be explained if we assume that the shrine is a copy of the Śiva temple existing here in the days the Amman shrine was added. The present Śiva koyil, however, is much younger and records from the former, probably brick, building are missing.

From this basic discussion of the niche it may now be clear that the architects of the first powerful Coḷa kings, Vijayālaya and Āditya I, had to find their own way in designing a more dignified niche than that which the Pallavas had left them and that they were free to choose any number of niches: from no niches at all (Muttaraiyar buildings) to three or even more (cf. the Arjuna Ratha and the Kailāsanātha at Kāñcī respectively).

## 2.2.Distribution of the variants;determination and description of uniform regions.

The absence of niches is characteristic for the I-1-a temples of the Muttaraiyars (cf. maps 5 and 6). The location of the nicheless Sundareśvara at Śendalā

Immediately west of the Sapta Sthānas is an indication that the Muttaraiyars at one time possessed the apex of the delta. The shrine at Vēdāraṇyam(V on map 6) in the southeastern tip of the delta, also has no niches. The Śiva koyil at Panangudi (P) — quoted by most authors as a typical example of the Muttaraiyar style — actually has one niche in each wall and lies in the area where all temples have one niche in each wall of the vimāna. Consequently, this shrine shows a closer relationship with that at Tirukkaṭṭalai(Tk) than with, for example, that at Kaḷiyapaṭṭi(Ka) in the centre of the I-1-a region. Nevertheless, some scholars attribute the koyils at Panangudi and Kaḷiyapaṭṭi to Vijayālaya (A.D. 852-870).<sup>7)</sup>

Of the twelve vimānas with three devakoṣṭhas in each wall, four are lying in the area of the Sapta Sthānas, i.e. at Tillaisthānam(Ti), Tiruvēdikkudi(Tv), Tirumalavāḍi(Tm) and Tiruppalanam(Tp). Six others are distributed over the whole delta. They are located in the central part at Kumbakonam(K) and Tiruvigaimarudūr (Tr); along the coast at Tirukaḍaiyūr(Td) and Nāgapaṭṭinam(N); in the south at Śembyan Mahādevī (SM) and Tiruvārūr(T). Finally, the vimānas at Tiruchchennampūṇḍi(Tc) and Śrīnivāsanallūr(S), are situated west of the Grand Aricut. It should be noted though, that the temples at Śrīnivāsanallūr and Tiruppalanam should be considered as two very special three-devakoṣṭha vimānas. In the former the lateral niches are actually recesses between pilasters of normal length(Pls. 31a-b), whereas in the latter the lateral niches do comply with the definition, but the central niche does not, for it is merely a recess (Pl. 23).

As the distribution of the vimānas with three devakoṣṭhas in each wall does not show a concentration, the delta can only be divided into areas with or without niches in the walls of a vimāna. This division is not very helpful in understanding the increase of the number of devakoṣṭhas in the course of time. In order to trace this development in a different way we have indicated in map 6 how many niches have been designed in the walls of the ardhamāṇḍapas. This allows us to conclude that, with the exclusion of the shrine at Tillaisthānam(Ti), all other Sapta Sthāna vimānas with three devakoṣṭhas per wall are located in the area where the ardhamāṇḍapas have only one niche per wall. This applies also to the shrines at Tiruchchennampūṇḍi(Tc) and Śrīnivāsanallūr(S). Moreover, all these temples lie in the region in which the ardhamāṇḍapa is still directly connected to the garbhagṛha, indicated as type A in map 6. The other vimānas with three devakoṣṭhas in each wall, located more to the east, are situated in the area where the ardhamāṇḍapa is linked up with the garbhagṛha by means of an antarāla indicated as type B. The Nāgeśvara at



Kumbakonam (K) belonging to type A is a lonely exception in this B-region. This could mean that not all three-devakoṣṭha vimānas date from the same period.

A regional division of the Palar area and South Arcot on the basis of the number of niches is hardly possible. With the exception of the Pallava temples only one niche in each vimāna wall is customary. The location of the three "recess temples" in South Arcot indicates that in the beginning of the 10th century the architects of this region had not yet decided how to solve this problem (Fig. 27, p.96).

### **2.3.Chronology of the uniform regions and of the temples within these regions.**

#### *2.3.1. Chronology of the regions.*

By comparing the data in Fig. 25(p. 92) with those on maps 5A and 6 the chronological sequence of regions in the delta based on the number of niches in a vimāna can be established. Fig. 30a is a simplification of the spatial arrangement of the five regions distinguished on map 6. Fig. 30b shows their chronological sequence. In the oldest area(I) only small ekatalas without niches are found. After A.D.880 the building activities moved to the apex of the delta(II). At first, the vimānas built in this region contained recesses and three niches in each wall. Between A.D.884-910, however, the number of niches was reduced to one. These two areas are surrounded by a third in which from A.D.884 till the end of the following century koyils were designed with a -2- layout and only one devakoṣṭha in each wall(III). According to this preliminary chronology the short period of roughly 25 years between A.D.884-910 saw the construction of temples with either three or one niche in each wall, depending on their ground-plan. The year A.D.910 is that of the oldest inscription on the Brahmapurīśvara at Puḷḷamaṅgai. This temple is the earliest known example of a complex vimāna without lateral niches in the recesses. To the east of the third region is a fourth in which between A.D.980-1000, vimānas were raised containing once again three niches in each wall(IV)<sup>8)</sup> In view of the diffusion process originating in the Sapta Sthānas in the west and expanding towards the east — a fifth and younger region seems to exist east of the second group of three-devakoṣṭha vimānas(IV) where the temples have only one niche in each wall(V).

In South Arcot the small area with so-called "recess vimānas"(maps 5A and 6) seems to be older than the surrounding region in which koyils were built with one niche in each wall. Comparing the data in Fig. 27, p.96 with those on map 5A we may conclude that the change occurred between A.D.935 and 943.

Along the Palar there is no obvious differentiation and so, a division is not possible.

### 3.3.2. Chronology of the temples within the regions of the delta.

Since the dates of the Sapta Sthānas as suggested by Balasubrahmanyam and Barrett do not reveal a direction in whatever style development (cf. pp.92-93, Fig. 26), we assumed the rather unusual phenomenon of an evolution from temples with three niches in the walls of their vimānas to only one niche in each wall — at least in the early phase of Coḷa architecture (pp.94-95).

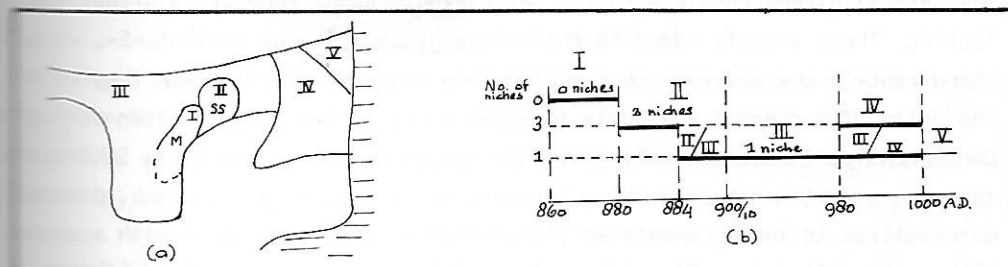


Fig.30a. The five subregions in the Kāverī delta. M = Muttaraiyars; SS = Sapta Sthānas.

Fig.30b. Proposed chronology of the five subregions based on the number of niches in the walls of the vimānas located in these regions.

But then the shrines at Tiruchchātturai and Panangudi are disturbing elements in the initial period, at least when we accept the dates attributed to them by Barrett and Balasubrahmanyam (Fig. 25 p. 92). Furthermore the koyils at Kumbakonam, Tiruchchennampūṇḍi and Śrīnivāsanallūr would then seem to have been designed far too late. Again, if Balasubrahmanyam is right, the vimānas at Tiruvaiaṇṇūr, Tirukkaṇḍiyūr, Kilaiyūr and Tirukkaṭṭalai do not fit into Barrett's theory, though the latter dated the last temple on the basis of its ground-plan to ca. A.D.909. On the other hand, Barrett attributed the shrine at Panangudi on the basis of its ground-plan, i.e. variant -1- but without any inscriptional support to ca. A.D.875. However, the sudden appearance of a devakoṣṭha with all the nature characteristics in a region in which until then only "bare boxes" had been customary, is quite revolutionary and the small shrine of Panangudi does not display the grandeur to be expected of such a building. The dates of the more imposing koyils at Tiruvaiaṇṇūr, Tirukkaṇḍiyūr, Kilaiyūr and Tirukkaṭṭalai are not fixed either. The inscriptions on these shrines allow for interpretations other than those suggested by both authors.

Leaving aside all these uncertain I-2-a and II-2-b monuments for the time being, we wonder what may be revealed by a line of thought which starts out

from an abrupt transition of vimānas without devakoṣṭhas to those with three. In the following section we shall discuss the various temples listed in appendix 7. The numbers between brackets refer to the temples mentioned in the first two columns of this appendix and correspond with those on map 5A.

(1-7). *The Sapta Sthānas* (Pls. 23-29).

The temple at Tiruppalanam (Pl. 23) smoothes down the sharp edges of the abrupt transition to some extent, for the central niche is a recess and only the lateral niches comply with the definition, though the makaratoraṇas are lacking. These aspects added to the unique ground-plan of variant -5-, reveals the eccentric character of this shrine when compared to all other temples in the delta. Its concept obviously found no mercy in the eyes of later sthāpatīs. Consequently, it seems likely that this is the oldest of the Sapta Sthānas and that the artists went on looking for more satisfactory forms, which, presumably materialized in the monuments at Tillaisthānam, a II-3-b temple with a square śikhara (Pl. 24) and at Tiruvēdikkudi, a II-4-b vimāna with a round śikhara (Pl. 25). The construction of both monuments must have been taken place before A.D.884, the year in which the shrine at Tiruchchātturai — the first II-2-b temple? — existed, a date on which Balasubrahmanyam and Barrett for once agree completely (Pl. 26). Since the makaratoraṇa was not yet applied over the niches of the temple at Tillaisthānam and not even roughly indicated, whereas this concept was successfully adopted in the design of the shrine at Tiruvēdikkudi, it seems quite reasonable to suppose that the vimāna at Tiruvēdikkudi is the youngest of the first group and was possibly finished during the construction of the koyil at Tiruchchātturai.<sup>9)</sup>

According to us the II-2-b vimānas of the Sapta Sthānas may have been built between A.D.883 and 890. The ekatala at Melatiruppūndurutti (I-2-a) was most probably also designed before A.D.890. These assumptions are based on developments which will be discussed in the next paragraph (p.111). A further refinement in dating seems irrelevant for the time being, because the II-(3, 4 or 5)-b vimānas form a roughly contemporary group which together are only slightly older than the II-2-b kōyils. Together with the I-2-a shrines they determined the later structural developments of Coḷa architecture. The temples within each group are mutual exchangeable. In fact, the greater the variety, the greater the possibility that we are dealing with an experiment.

Whether the vimānas with three devakoṣṭhas in each wall and a II-(3,4 or 5)-b ground-plan are older than the II-2-b temples with one niche in each wall can only be decided after we have discussed several II-(3 or 4)-b vimānas with

three niches in each wall outside the small area of the Sapta Sthānas. For, according to our theory, these must have been built in the period that the architects of the Sapta Sthānas were still experimenting with the II-2-b type. In Pl. 25(p. 92) and appendix 7 we can see which temples, according to Barrett and/or Balasubrahmanyam seem to refute our theory. These are the Nāgeśvara at Kumbakonam(8), the Śaḍayar Koyil at Tiruchchennampūṇḍi(9) and the Koranganātha at Śrīnivāsanallūr(10), the last, however, only when its cut-out niches turn out to be part of the original planning.

108. *The Nāgeśvara at Kumbakonam* (Pls. 30 and 92 a).

This koyil may have been built around A.D.885 according to inscriptional evidence. Barrett, however, considered it to be an early temple of Parāntaka I.<sup>10)</sup> It has three striking features. Firstly, it has — like the shrine at Tiruvēdikkudi — beautiful makaratorāṇas over the central niches while over the lateral niches already vaguely decorated makaratorāṇas are indicated. Secondly, a small element has been added to the adhiṣṭhāna in exactly the same place and with exactly the same composition as on the base of the shrine at Tiruchchātturai, dating from A.D.883, viz. a lotus-moulding directly over the upāna(cf. Pls. 26 and 30). Thirdly, the śikhara displays an experiment, for it has a śukanāsa in front of its eastern grīvā-niche. Experiments in the shape of the superstructure — including the śikhara — are also visible on the monuments at Śrīnivāsanallūr and Puḷamaṅgai dating from the same period. On later shrines the shape of the upper talas seems to be standardized, an aspect which will be discussed in the next chapter.

109. *The Śaḍayar Koyil at Tiruchchennampūṇḍi* (Pls. 34, 35a-b).

This monument is even more remarkable than the previous one. The ground-plan is again the same as that of the temple at Tiruvēdikkudi (Pl. 25). Every central devakoṣṭha is adorned with a makaratorāṇa which gives — in spite of serious damage — an excellent impression of its original beauty. There is no indication whatsoever that a makaratorāṇa over the lateral niches was planned. This lends the temple an older look than the Nāgeśvara at Kumbakonam. Barrett dated the Śaḍayar Koyil ca. A.D.920, because none of the inscriptions on this building are older. However, this does not necessarily exclude the possibility that the shrine could date from the end of the 9th century. Until recently the monument seemed irreparably damaged, as can be clearly seen in Pl. 34. That the Archaeological Survey of India has yet managed to make a recognizable building out of it, is no mean achievement(Pl. 35a). In itself the absence of earlier records

can therefore be explained. It is less easy to trace the source of the shape of its adhiṣṭhāna. It has always been assumed that this type of base with a kapota instead of a paṭṭikā, was introduced in the delta by the sthāpatis of the Brahmapurīśvara at Puḷḷamaṅgai, which is supposed to date from the first decade of the 10th century. However, with this temple a period starts in which only vimānas with two pañjaras in every wall instead of lateral niches, were designed. This period lasts for about half a century, as we shall show further on.<sup>11)</sup> Consequently, it seems unlikely that the shrine at Tiruchchennampūṇḍi could have been built after A.D. 910. Moreover, the composition of its base is not new but may have been copied from older Cāḷukya temples (Fig. 3, p. 44, Pls. 5-9). In our opinion this adhiṣṭhāna is an indication that the architects of the Sapta Sthānas were still searching for the proper composition of this part of the temple. For the II-2-b vimānas of the Sapta Sthāna group also show that a permanent solution for the base had not yet been found. Although we shall deal with this matter in more detail in chapter four, it may already be pointed out here, that the oldest II-2-b building, i.e. that at Tiruchchātturai, already has the small padmabandha between the upāna and the jagatī. The other two monuments of this group of II-2-b vimānas have the well-known and typical Coḷa "jagatī" in the shape of a gigantic lotus.

We believe that the temple at Tiruchchennampūṇḍi must have been built after that at Tiruchchātturai, but before the Nāgeśvara at Kumbakonam, because there are no makaratoranas over the lateral niches. The Nāgeśvara must be dated before the Brahmapurīśvara at Puḷḷamaṅgai, for the latter has already one devakoṣṭha in each vimāna wall and pañjaras instead of lateral niches. This implies that the record of Āditya I from A.D. 886 was indeed inscribed in that particular year on the walls of the Nāgeśvara.<sup>12)</sup> Only one problem remains, i.e. whether the Koranganātha at Śrīnivāsanallūr can also be attributed to the period between A.D. 884 and 910.

(10). *The Koranganātha at Śrīnivāsanallūr* (Pls. 31a-d).

The earliest inscription on this temple is dated in A.D. 894. Balasubrahmanyam, as usual, immediately used this record for a stylistic attribution without supplying a single sound argument. Barrett, on the contrary, believed that this koyil was erected ca. A.D. 927 on account of the presence of two inscriptions of Parāntaka I dated in that year. He derived his arguments partly from these records and partly from the architectural style of the building. His reasons are that the shape of the ground-plan (II-3-b) has already become complicated; secondly, that the composition of the adhiṣṭhāna does not fit into the develop-

ment suggested by him for this aspect of a temple; thirdly, the presence of an antarāla, a completely unknown element in Early Coḷa shrines; finally, and most important, the position of a Rājakesari record mentioning the year 24, which consequently must have been issued by Āditya I, since it is a high regnal year. Although sufficient space was available, this record is squeezed between the two inscriptions of Parāntaka I. According to Barrett this implies that all three records were engraved at one and the same time.<sup>13)</sup>

None of the four arguments appeals to us. For, the more complicated the ground-plan, the better it fits in with our view that it is an old temple built not long after the first Sapta Sthānas were designed (p. 103). The unusual base should not surprise us. Its two lower parts are identical with those of the base at Tiruchchennampūṇḍi. Barrett's argument that the base of the Koranganātha does not fit into the phase of Āditya I cannot be maintained. It could equally be asserted that the first typical lotus adhiṣṭhāna does not represent the first phase. The fact that it does, is due to its having been copied widely, while the base of the building at Śrīnivāsanallūr obviously was not. However, this does not allow us to eliminate this shape from the list of characteristics of the period of Āditya I. Moreover, there are two more examples, viz. the base of the shrine at Tirukkāṭṭuppalī, which Barrett himself included in his table<sup>14)</sup> and that at Kīranūr, which he did not mention, probably because the vari is missing. However, the vari is part of the temple wall and not of the socle. Characterizing a variant on the features not belonging to it, seems a wrong procedure.

The presence of an antarāla is not surprising considering that we are dealing with a sāndhāra vimāna. Consequently, the connection of the ardhamaṇḍapa with the garbhagrha does not necessarily have to be identical with that of vimānas without double walls. Barrett's argument becomes less convincing, since he did not apply it consistently. On the one hand, he felt that the presence of an antarāla proves that the Koranganātha at Śrīnivāsanallūr belongs to the 10th century, whereas, on the other hand, he ignored the presence of an antarāla in the shrine at Lalgudi (appendix 7, no. 11), presumably in order to retain it for the 9th century.<sup>15)</sup>

Finally, the position of the three inscriptions in question could be regarded as an indication that already the scribes of the 10th century considered this koyil too beautiful to be spoilt by even more records and therefore decided to use the wall engraved with the older inscription of Āditya I, for the information of the days of Parāntaka I — unwittingly causing a controversy some 1050 years later.

The preceding discussion opens the possibility to date the shrine at Śrīni-



vāsanallūr just before the beginning of the 10th century. In fact, its construction in A.D.894 -895 seems quite acceptable, for the temple was situated in a town which was part of the great Pallava realm and which carried the name of one of its kings, viz. Mahendramaṅgalam.<sup>16)</sup> The Pallavas built a number of sāndhāras at Kāñcī and Uttaramallūr, proving their knowledge of this form.<sup>17)</sup> A similar shrine existed probably also at Śrīnivāsanallūr and another example is still located at Nārttāmalai, near by. One day the assembly of this town decided that the old temple should be replaced by a new one, preferably as large as the former. The successful architects of the Sapta Sthānas were requested to design a sāndhāra vimāna. It can be imagined that this assignment was a challenge which appealed to their creative mind. They were, however, for the first time confronted with the problem how to divide the relatively long sāndhāra walls into sections, for a sāndhāra is larger and taller than a vimāna without double walls. Consequently, the number of recesses should be larger than in the simpler II-3-b type, viz. four instead of two, at least when this ground-plan is chosen. This difficulty could be solved in several ways, either by adjusting the number of niches to the number of recesses — which means a total number of five niches in each wall — or by designing devakoṣṭhas in the two projections on either side of the central niche. The difficulty with the first solution is that the sculptors could not yet create images for the larger number of niches, implying that they had to leave them empty; the problem with the second solution is that there is not enough space for devakoṣṭhas.

It is obvious that the sculptures which we now see in these recesses are due to later activities, for they are too large for the narrow recesses. In some places part of the side-walls had to be cut away in order to make room for, say, an elbow (Pl.31b). We cannot believe that the architects of a temple designed in such a careful way failed to plan the width of its recesses in accordance with the size of the images and *vice versa* that the talented sculptors failed to take into consideration the measurements of the niches for which they had to carve the present images. Consequently, these well-preserved and stunning figures are obviously later additions. Since we are thus confronted with a vimāna for which its artists could not find a proper solution for the decoration of the enormous wall space we better turn our attention to a monument in which this particular problem was solved, i.e. the koyil at Puḷḷamaṅgai. The walls of this shrine are decorated with pañjaras on the place where in former temples (empty) niches were applied. As this element is an excellent alternative on wall spaces which are too narrow for a real niche, the skillful sthāpatis of the Koranganātha at Śrīnivāsanallūr would certainly have

made use of the idea, had they been familiar with it. All this allows us to ascribe the Rājakesari inscription to Āditya I, which implies that the Korangamātha was constructed before A.D.895.

According to the above reasoning all vimānas with three devakoṣṭhas in each wall and a II-(3 or 4)-b layout can be dated before the beginning of the 10th century. However, on p.102 we assumed that between A.D.884 and 910 buildings with one niche in each wall were also designed, though their ground-plan was far more simple, viz. the II-2-b temples (Fig. 22b, p. 86). The II-2-b shrines at Tiruvaiaiyāṇū and Tirukkaṇḍiyūr bear no inscriptions which could support this assumption (appendix 7, nos. 5-6). Barrett attributed the latter (Pl. 28) to A.D. 918, which is, in our opinion, too late, whereas Balasubrahmanyam believed that the former was built before A.D.876, which to us seems far too early (Fig. 25, p.92).

In our opinion these two temples belong together. Both have the lotus base, a form which according to us developed from the minuscule lotus moulding which we found earlier on at Tiruchchātturai (appendix 7, no.4). The makaratorāṇa at Tiruvaiaiyāṇū is more or less squeezed into a rectangle.<sup>18)</sup> It resembles that at Tiruchchātturai (cf. Pls. 27a and 26). The makaratorāṇa of the shrine at Tirukkaṇḍiyūr resembles the more elegant one at Tiruvēdikkudi hanging over their lintels (cf. Pls. 25 and 28). On comparing these rather primitive makaratorāṇas with the balanced and extremely beautiful makaratorāṇas on the twin shrines at Kilaiyūr (Pls. 33a-b), it is obvious that the latter are younger. Moreover, we should take into account that the two buildings at Tiruvaiaiyāṇū and Tirukkaṇḍiyūr are situated quite near to each other. In addition they have a round and a square śikhara respectively — a diversity also found in the twin monuments at Kilaiyūr.

In view of all this it seems justified to assume for the time being that the temples at Tiruvaiaiyāṇū and Tirukkaṇḍiyūr were copied at Kilaiyūr. According to both Balasubrahmanyam and Barrett these twin koyils existed already in A.D. 880, although the oldest, completely reliable inscription dates from A.D.932.<sup>19)</sup> We are quite prepared to accept that the shrines at Kilaiyūr were founded in the last decade of the 9th century, but it does imply that the three II-2-b buildings of the Sapta Sthāna group were designed between A.D.884 and 892.

We shall return to the above discussion in greater detail in chapter four, where further arguments will be advanced, especially with regard to nos. 11 and 12.

(13 and 14). The *Vaṭatīrtanātha* at *Aṇḍanallūr*; the *Candraśekhara* at *Tiruchchendurāi*.

Finally we should like to discuss two temples along the undivided Kāverī.

The vimāna at Aṇḍanallūr represents the II-4-b type with one niche in each wall. The oldest inscription on this building dates from A.D.918. However,

these two facts are incompatible with each other, for, in our opinion, only vimānas with pañjaras were constructed in the first decades of the 10th century (p. 106). Not far away is an example of a II-2-b shrine, located at Tiruchchendurai (appendix 7, no. 14) which existed already in A.D. 910, according to one of its records.<sup>20)</sup> According to Balasubrahmanyam it must have been built before A.D. 893, because inscriptions with high regnal years of Rājakesarivarman,<sup>21)</sup> i.e. Āditya I, are carved on its walls. In one of these a lady called Pudi Adichcha Pidariyar is mentioned. In A.D. 909 the same lady is described as consort of Arikulakesari, son of Parāntaka I. This record states that the temple "was built by us", in the past tense. On the basis of this information Barrett concluded that an old, brick shrine was replaced by a stone structure in A.D. 909. However, in our opinion, the promotion of the lady in question to a higher rank must have been the reason to add an inscription in A.D. 909 informing us that the building constructed in or before A.D. 893 had been financed by a lady who had meanwhile become a member of the royal family. We therefore agree with Balasubrahmanyam that the monument at Tiruchchendurai was erected before A.D. 893. It was probably built by the sthāpati of the Vataṭṭīrtanātha at Aṇḍanallūr who could choose from the by then known layouts II-(3 or 4)-b or II-2-b. He added only one niche in each wall of this vimāna since it was already customary at that time to design koyils with a reduced number of niches. The bases of both temples upto and including the kumuda have disappeared under a solid pavement, so that it is no longer possible to check whether there are inscriptions on the adhiṣṭhāna which are older than A.D. 909. However, we would not be surprised if older Rājakesari records would emerge on removal of the pavement.<sup>22)</sup>

.....

All these interesting developments in the Kāverī region seem to fail to reach South Arcot. On the ekatala at Tirunāmanallūr (Fig. 27, p. 96) the first complete devakoṣṭha is introduced about 50 years later, i.e. ca. A.D. 940. Until then — and even afterwards — recesses are considered adequate accommodations for images, to be precise: the modest number of one in each wall (cf. Fig. 27 and map 6).<sup>23)</sup> This statement seems to be contradicted by the dvitala at Kīliyanūr attributed to the 9th century. This temple carries an inscription dating from year 10 of a certain Parakesari. Balasubrahmanyam assumed on grounds of the shape of the koyil in question that it is a record of Parāntaka I. His mistake here is, that he ignored the location in an outer area and used only the shape as a criterion for dating. This train of thought is in itself legitimate, but one wonders why no more attention is paid to the quality of the decoration. For, apart from the introduction of new forms, the hallmark of the Āditya I phase is

its refinement, which is entirely missing in this case.<sup>24)</sup> As there is no inscriptional evidence the building has to be dated on grounds of its stylistic features. However, this shrine displays no distinct ornamental details, for there is no decoration and where it should have been carved out the shape of the uncarved blocks of rough stone are indicated only vaguely. It is obvious that more information is needed before an opinion about the situation in this district can be formulated. We are, however, inclined to believe that the phase of the so-called "recess vimānas", represented by the ekatalas at Tiruvāmattūr, Śrīvillipūtūr and Grāmam, preceded that of the shrines with only one niche in each wall, i.e. those at Tirunāmanallūr and Kīlīyanūr. In chapter four we shall bring forward arguments in favour of this suggestion.

In the Palar area we can establish a complete change (Fig. 27, p.96). For, the Pallava monuments are characterized by numerous niches in the cut-out version, whereas all later, non-Pallava buildings belong to the type with one niche in each wall. The oldest deviation is the Gaṅgaikondaṇḍacoḷeśvara at Kūḷambandal dated in A.D.1034. This is a II-4-b vimāna with three devakoṣṭhas in each wall. The development seems to run via a short period around A.D.1000 in which the kumbha-pañjaras appear on the walls of temples which have only one niche in each wall.<sup>25)</sup>

From the above it can be inferred that structural changes in Early Coḷa architecture are restricted to shrines situated in the Coḷamaṇḍalam proper. Apart from a shrinking in size of vimānas (p. 97, Fig. 28), and a reduction of niches in their walls (p. 103) a related development seems to have occurred, viz. the introduction of pañjaras as a means to eliminate superfluous vimāna devakoṣṭhas (pp. 108-09) and a subsequent enlargement of vimānas with more niches (Fig. 25, p. 92 and Fig. 30b, p. 103).

We shall first discuss the pañjara in its various shapes and its importance with regard to dating monuments.

### 3. Distribution of pañjara vimānas

#### 3.1 Introduction and definition; typology, new hypotheses.

##### 3.1.1. Introduction and definition.

In the last paragraph the pañjara has been mentioned a number of times as an element, because its presence cannot be disconnected from the sum total of devakoṣṭhas in the walls of the vimāna and the ardhamandapa. It is time to explain what is meant by a pañjara, where it occurs on the vimāna wall and how it functions in the structural and religious concept of the vimāna.

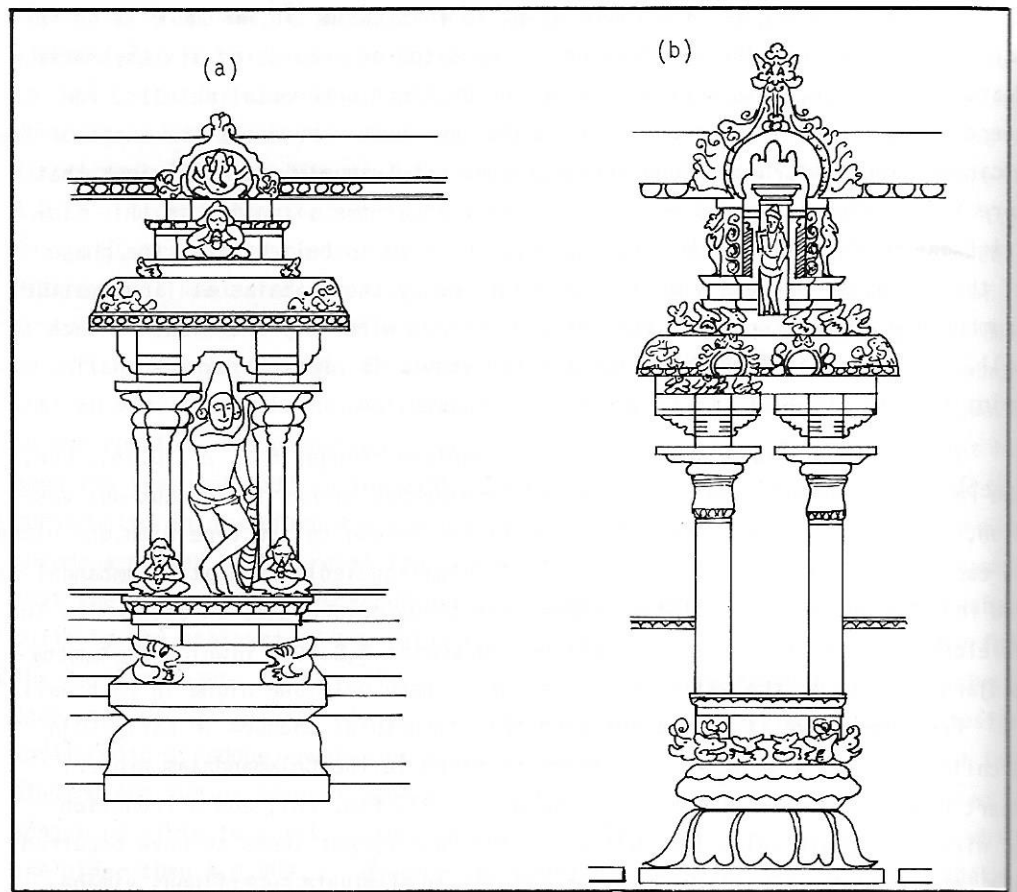


Fig.31. Two examples of a pañjara.  
 (a) the Olakaneśvara, Māmallapuram, Pallava, ca. A.D. 700.  
 (b) the Brahmapurīśvara, Puḷḷamaṅgai, Early Coḷa, ca. A.D. 900.

If the pañjara is a structural element there must be a relationship with other parts of the temple determining this structure. In other words, we expect the pañjara to occur in combination with a particular ground-plan and a specific number of talas. In these combinations the sum total of niches will be shown to be of the utmost importance. Consequently, this paragraph is to a certain extent a continuation of the previous two sections.

A pañjara can be defined as follows:

A pañjara is part of the vimāna wall and consists of two pilasters supporting a kapota on which, in its turn, a replica of a small ekatala is placed. The whole stands either on the paṭṭikā of the vimāna, or on an adhiṣṭhāna of its own. Occasionally it even rests on an upāna of its own.

Pañjaras always occur on either side of the central niche. So, in principle, pañjaras can be included irrespective of the shape of the ground-plan. On grounds of logical development and aesthetic consideration the most satisfactory solution for the location of the pañjaras is the space originally meant for the lateral niches. The most appropriate form is the II-(3 or 4)-b vimāna. When pañjaras occur on a shrine with a ground-plan of the -2- variant, this might point to a later phase in the development, when the original function of the pañjara had already been forgotten.

What could have been the function of the pañjara? The oldest pañjara in Tamil Nāḍu occurs on the walls of the Olakaneśvara at Māmāllapura. (Fig. 31a). The two protruding parts of the wall containing the pañjara have been incorporated so harmoniously in the vimāna wall, that it is difficult to realize that they are, in fact, pañjaras. They resemble sentry-boxes offering shelter to dvārapāla figures. With some effort they can also be discovered on the second talā of the Mukunda Nayanar at Māmāllapuram (Pl. 37) and on the hāra of the small prastara shrines of the Kailasanātha at Kāñcī (Pl. 36). So, their original function was to accommodate images though these are no longer present in the two Pallava temples just mentioned, probably because they were carried out in plaster.

The Early Coḷa architects, on the other hand, seem to have been more interested in the form than in the content of the pañjaras. Presumably they wanted to reduce the number of niches in the walls of a vimāna without affecting the harmony of the construction. The resemblance between the pañjaras of the Olakaneśvara and those of the Brahmapurīśvara at Puḷḷamaṅgai is striking (cf. Fig. 31a and b), although the latter are far more refined. We have to keep in mind that the Early Coḷa artists were confronted with the problem how to fill the wall space without using images. This is not merely an imaginary problem. Undoubtedly, the traditional practice was to plaster and then to paint the shrines. This implies that in that particular period plasterers and painters were readily available, whereas skilled sculptors of images were not. Pañjaras are already present on the śikharas of some of the Sapta Sthānas — viz. on those at Tillaisthānam and Tiruvēdikkudi (Pls. 24-25) — in exactly the same place as on the small Pallava shrines of the Kailasanātha at Kāñcī (Pl. 36) and on the Mukunda Nayanar at Māmāllapuram (Pl. 37). So the Early Coḷa sthāpatīs were familiar with this element, for they used it in a smaller version on the second talas of their earliest buildings. They could, therefore, choose from various alternatives to solve their particular problem. The easiest solution would have been to leave niches empty for the time being. Alternatively, they



could alter the shape of the ground-plan as a result of which the niches became redundant, i.e. change the-(3 or 4)-lay-out into the -2- or even -1- variant; a third solution would have been to leave out the niches altogether and use pañjaras instead, but then, of course, without images.

We believe that the first solution was applied to the Koranganātha at Śrīnivāsanallūr and the Nāgeśvara at Kumbakonam.<sup>26)</sup> The simple dvitalas of the Sapta Sthānas seem to be examples of the second alternative in which the ground-plan of the vimānas was changed. The Brahmapurīśvara at Puḷḷamaṅgai illustrates the third solution. However, the fact that images were added on the walls of this vimāna, whereas the pañjaras remained empty produces a problem (Pls. 38a-b). The presence of Brahmā and Viṣṇu on either side of the Liṅgodbhava in the western wall of the vimāna can be explained on symbolical grounds. The fact that both deities were not given devakoṣṭhas and had, so to say, no roof over their heads, could be interpreted as a refined way of stressing the inferior position of both gods with regard to that of Śiva.<sup>27)</sup> In any case, this probably earliest representation of Śiva as Liṅgodbhava, was in this way provided with an obviously, carefully planned entourage.

By this time the growing interest in the Kāverī area in the many other manifestations of Śiva demanded an increase of the number of niches. Meanwhile pañjaras had probably already become such a common element on the vimāna walls that they compelled the designers of new buildings to find space for the devakoṣṭhas somewhere else, i.e. on the walls of the ardhamandapa. This part of a temple can easily be extended without causing structural problems. On the other hand, when the number of niches in the vimāna wall is increased — especially when the pañjaras are also maintained — then the ground-plan of the vimāna has to be enlarged and the roof adjusted with an extra tala in order to keep the whole construction in proportion.

The first temple without pañjaras but with three devakoṣṭhas in each wall of the ardhamandapa is located at Kōṇērīrājapuram (K on map 5A). The Coḷa queen Śembyan Mahādevī founded this ekatala of the I-2-a type in A.D.970 (Fig. 25, p. 92). The Kailasanātha at the village called after this queen and also commissioned by her, has three niches in each vimāna wall in addition to three in each ardhamandapa wall. This dvitala dates from A.D.980 and has the II-4-b combination. The development in which the number of niches suddenly increases, culminates ten years later in the tritala at Tiruvārūr (T on maps 5A and 6), a building which has niches in the walls of its antarāla in addition to three niches in each wall of both the vimāna and the ardhamandapa.

In our opinion the pañjara phase starts ca. A.D.910 or, perhaps ten years

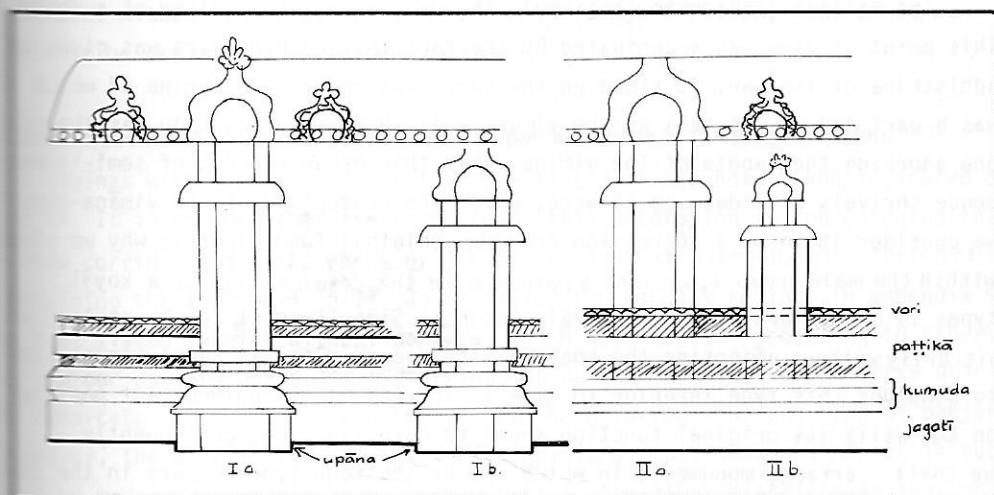


Fig.32. The four types of a pañjara.

earlier, i.e. with the construction of the Brahmapurīśvara at Puḷḷamaṅgai and around ca. A.D.970, the year in which the shrine without pañjaras at Kōṇē-mirajāpuram was inaugurated, as will be demonstrated in the course of this chapter.

A completely different question is whether the pañjara type, as introduced in the Brahmapurīśvara, was maintained throughout the entire period or whether changes occurred, e.g. as the result of loss of function. Therefore, a typology based on presupposed phases of development, seems desirable.

### 3.1.1. Typology of pañjara forms.

Two main forms can be distinguished (Fig. 32):

- I. a pañjara with an adhiṣṭhāna of its own and
  - II. a pañjara which stands on the paṭṭikā or the vari of the vimāna wall.
- This is an essential distinction because in the first form the ground-plan of the vimāna changes, whereas in the second it does not.

A second criterion is the height of the pañjara. It can be crowned by a karṇakuṭī, an ekatala or a large, open kūdu. The kūdu may be part of the kapota of the vimāna and consequently distinguishes itself from the row of kūdus on the kapota by its size (a). However, the karṇakuṭī or the kūdu can also remain under the kapota (b). The first possibility (a) demands a conscientious approach by the architect, for the lines of the pañjara must flow harmoniously via the kūdu onto the superstructure, i.e. either the hāra of a dvitala, or the grīvā of an ekatala. So there are four types of pañjaras: Ia, Ib, IIa or IIb.

The Pallava architects regarded the pañjara as the shelter of a deity. This point of view was accentuated by the fact that each pañjara was given an adhiṣṭhāna of its own. It stood on the same platform as the shrine of which it was a part and was as tall as the vimāna wall. Moreover, its kūdu was the only one adorning the kapota of the vimāna. When this proud concept of semi-independence shrivels or hides, as it were, under the protection of the vimāna-kapota, we consider it to be a regression from the original form. That is why we place within the main group I, variant a before b. In the total design of a koyil types Ia and Ib are both structural elements. Since type II can be applied arbitrarily without affecting the shape of the ground-plan, it seems appropriate to consider this type inferior to type I. In view of its unimportant position on the walls its original function seems to have vanished. Consequently, we shall arrange monuments in which one of the four types occurs in the chronological sequence Ia, Ib and IIa/b. We cannot determine whether type IIa is younger or older than IIb as variants a and b existed already before type II was designed and so, these variants can be contemporary.

### 3.1.3. Hypotheses.

In order to date some controversial temples we base ourselves on three assumptions: (1) a development in the shape of the pañjara covering a period of roughly 70 years; (2) an inverse relationship between the appearance of pañjaras and disappearance of niches in the walls of vimānas and (3) also an inverse relationship between the disappearance of pañjaras and the appearance of more niches in the walls of ardhamandapas. In case these hypotheses can be substantiated — for instance by inscriptional evidence, resulting in an evaluation of the views of Balasubrahmanyam and Barrett — then the following deduction can be made:

- temples with three niches in the walls of their vimānas and/or ardhamandapas in combination with one of the four distinguished types of pañjaras are examples of later developments;
- temples with the complex II-(3 or 4)-b layout — possibly in combination with a large number of niches — and with pañjaras on their walls are also examples of later developments;
- temples without pañjaras but supposed to have been built in a period which we, from now onwards, shall call the pañjara phase, need a revision with regard to their date.

If our hypotheses are supported by inscriptions on the temple walls and if a so-called "pañjara region" should become visible when pañjara-vimānas are plotted on a map, then a last deduction can be made:

temples without pañjaras but located in the pañjara region, were designed either before or after the pañjara phase.

#### **Distribution of the vimānas belonging to the pañjara phase in the pañjara region.**

vimānas with a pañjara decoration are listed in appendix 8 and indicated on map 6A. It is obvious that the presence of this decoration is concentrated in a narrow corridor along the banks of the Kāverī and the Coleroon. This stretch of land containing the temples 1 to 14 can be called the pañjara region. In appendix 9 we have listed temples without pañjaras which were built — according to others — during our pañjara phase. Their distribution-pattern is such that we were unable to demarcate subregions characterized by the occurrence of one type of pañjara. Moreover, the distribution of the various pañjara types shown on map 6A is such that we may not expect the same development in the other districts as that observed in the delta. As the idea of applying pañjaras instead of niches did not reach the other parts of Tamil Nāḍu — except in four instances — our hypotheses are not valid in those areas and other criteria are needed.

Before starting our discussion of the 31 shrines mentioned in appendices 8 and 9 a few remarks about appendix 8 seem appropriate. The delta shrines are listed according to two criteria: the pañjara sequence Ia-Ib-IIa or IIb (column 3) and the increase in the number of niches in the ardhamāṇḍapa walls (column 4). It will be clear that this arrangement of temples on the basis of their pañjaras and niches confirms the discussion in paragraph 2.3.1 of this chapter (p.102), i.e. that the layout of the vimāna (column 5) developed from the more complex -(3 or 4)-b type at Puḷḷamaṅgai to the more simple forms I-2-a and II-2-b at Tiruvādūtūrai and Kuttālam respectively. One may wonder why the shrine at Goburapatti was not included higher up in this list as all its characteristics indicate that it is at least as old as the temple at Puḷḷamaṅgai. The koyil in question was built ca. A.D. 910 with Ia pañjaras decorating merely the walls of the vimāna. Its design, therefore, seems to illustrate that the complex vimāna regained its popularity towards the end of the 10th century. This confirms our second deduction, i.e. that vimānas with complex layouts in combination with the presence of pañjaras must have been erected after A.D.990. Inscriptions on the two large koyils at Dadapuram and that at Tennēri reinforce this idea: all three were built during the period of Śembyan Mahādevī.

In the next paragraph we shall discuss the monuments listed in appendix 8. The dates as proposed by Balasubrahmanyam and Barrett are given in columns 6 and 7 respectively; references to the publications of both scholars in column 9. The dates in column 8 represent our own preliminary suggestions.

### 3.3. Description of the vimānas with pañjaras.

#### 1. *The Pipīleśvara at Tiruveṇṇambūr* (Pl. 39).

The Pipīleśvara is an ekatala with a straight ground-plan and — apart from the pañjaras — four pilasters on each wall (I-1-a). Its ardhamāṇḍapa is directly attached to the vimāna. In all there are five niches, three in the vimāna and two in the ardhamāṇḍapa. The Ia pañjara is completely integrated with the adhiṣṭhāna, the kapota and the walls of the main building and is, therefore, comparable with the original Pallava examples on the Olakaneśvara at Māmalla-puram (Fig. 31a).

Balasubrahmanyam assumed that the Pipīleśvara was raised between A.D. 875 and 889, while later additions such as the śikhara, were possibly added in A.D. 952. As the inscriptions, unfortunately, only mention the honorific title Rājakesari, without adding the name of a king, he was not quite sure about the date of this shrine, for "There is conflicting and even confusing evidence regarding the origin of the present temple in the early Chola period and it is difficult to unravel the tangled skein of the chronology of the numerous Rajakesari inscriptions of this place."<sup>28)</sup> However, in spite of this conflicting evidence he started out from the assumption that the temple was built by a certain Tattan Sendi around A.D. 875 and that this lady after some time, i.e. in the 19th year of the reign of Āditya I (A.D. 889), made an endowment to the shrine. Much later, the building was extended considerably by a certain Śembyan Vēdi Velan. This took place in the third year of a Rājakesari. The epigraphist identified this ruler as Gaṇḍarāditya, which explains why Barrett suggested that the koyil was constructed in A.D. 952.

Barrett rejected Balasubrahmanyam's conclusions merely because a figure of Naṭarāja Ānandatāṇḍava is represented in the crescent of the makaratoraṇa above the niche of Dakṣiṇāmūrti. According to him, this iconographic representation of Śiva occurs for the first time in the Śiva koyil at Tiruchchennampūḍi, which he dated — incorrectly — ca. A.D. 920 (p. 105 and appendix 7, no. 9). Moreover, according to his typology the temple has a C-1 ground-plan (Fig. 17, p. 70). Consequently, both arguments would prove that the shrine was built long after the reign of Āditya I. Since this seemed to him the most convincing interpretation of the confusing records, he dated the temple closely after the reign of Gaṇḍarāditya.

We do not agree with Barrett's interpretation. In the first place because decorative details of a temple should never be used to date its structural elements. The Naṭarāja figure may well have been added later.<sup>29)</sup> Secondly, he did not make clear why the Naṭarāja Ānandatāṇḍava at Tiruchchennampūḍi

dating from ca. A.D.920, should be considered as the earliest representation of this aspect of Śiva in South India. In the third place, Barrett's typology of the ground-plan shows serious weaknesses, at least when he applied it to construct a chronological sequence.<sup>30</sup> So we are left in the dark why the C-1 variant should represent a later stage in the development of the ground-plan than for example D-2, of which the koyil at Puḷḷamaṅgai is an example (A.D. 920-920), or B-5 which can be found in that at Kuttālam (A.D.991).

On account of the highly controversial date of the Pipīleśvara at Tiruveṇṇambūr we inspected the monument several times. It was only at our third visit that we — apart from being allowed to make photographs for the first time — were able to understand its features. The solution to the whole problem can be found in the walls of the ardhamāṇḍapa. In the following we shall try to explain our reconstruction of the sequence of events.

If an architect wants to eliminate niches in a vimāna wall and is searching for alternatives, it seems likely that he opts for an existing solution, which in this case he found on the walls of the Olakaneśvara at Māmallapuram, for there is a striking similarity between this Pallava monument and the koyil at Tiruveṇṇambūr. Both have a square ground-plan with only two protruding sections in each wall by way of pañjaras. The similarity is all the more striking as this particular layout was never repeated again. This makes the ground-plan of the shrine at Tiruveṇṇambūr a straight-forward and unique copy of a Pallava concept in an area where other Pallava ideas had been tried out as well, i.e. in the II-(3 or 4)-b vimānas of the Sapta Sthānas. This could mean that the monument at Tiruveṇṇambūr represents the first Early Coḷa experiment of a vimāna with pañjaras in each wall instead of lateral niches. The concept of incorporating the Ia pañjara in both the ground-plan and the walls could then have been copied from Tiruveṇṇambūr by the sthāpatis of the Brahmapurīśvara at Puḷḷamaṅgai, which for the first time displays the characteristics of the Early Coḷa style, especially in the shape of its beautiful lotus adhiṣṭhāna (fig. 31b). We are therefore, inclined to believe that the construction of the shrine at Tiruveṇṇambūr preceded that of the Brahmapurīśvara at Puḷḷamaṅgai. If this is correct, then the record of the 19th regnal year of a Rājakesari on the walls of the Pipīleśvara could be of Āditya I and then belongs to the year A.D.889. This date fits in with the idea that the Nāgeśvara at Kumbakonam — from A.D.886 — was the last vimāna with three niches in each wall (p. 105).

A further reason to date the koyil at Tiruveṇṇambūr before A.D.900, is provided by its ardhamāṇḍapa which is short, implying that the space between the pilasters does not allow for a proper niche. Consequently, the present niches



are very narrow and reach only three-quarter up the walls in order to retain correct proportions. This implies that the ardhamāṇḍapa from the adhiṣṭhāna upwards is later in date than the base. The explanation is probably an accident as a result of which the roof collapsed resulting in considerable damage. However, in every adhiṣṭhāna the position of the pilasters is fixed by small protruding blocks of the kaṇṭha, which in this case are occasionally decorated. So the spacing of the pilasters on a (future) wall is determined by the base, although the upper part of a building is not necessarily as old as the base. In case the Pipīleśvara at Tiruveṇṇambūr was rebuilt from its adhiṣṭhāna upwards, it must have taken place in a period when niches in the walls of an ardhamāṇḍapa were customary. In the course of this renovation the old-fashioned shape of the original ground-plan then seems to have forced the architects to incorporate pañjaras in the walls of the vimāna. It therefore appears most likely that the extensive additions to the shrine by Śembyan Vēdi Velan indeed came about in A.D.952. By then, niches in the walls of an ardhamāṇḍapa had become a tradition, as will be seen in the next paragraph. Anticipating the full discussion of the development of this feature we can reveal here that the concept of ardhamāṇḍapa without niches was already abandoned during the construction of the Sapta Stūṇas in the delta area and some years later along the borders of the undivided Kāverī. Consequently, the layout of the present building including its base, must have been completed about A.D.889 at the latest.

## 2. *The Brahmapurīśvara at Puḷḷamaṇḍai* (Pls. 37a-d).

The Brahmapurīśvara is the first tritala ever built by Coḷa architects. However, its layout is not adapted to its height, for there are — apart from pañjaras — only six pilasters on each wall (III-4-b). The pañjaras are in line with the projecting wall sections on either side of the central niche which juts out even further. Contrary to the pañjaras on the monument at Tiruveṇṇambūr(1), the 1a pañjara on the Brahmapurīśvara shows a far more independent character. In the first place it rests on an upāna of its own; secondly, its base differs from that of the main building; thirdly, the height of the pañjara-base is considerably lower than that of the vimāna — in spite of the fact that it stands on an upāna which the vimāna does not. Finally, the phenomenon of a pañjara is not restricted to the walls of the vimāna, for they occur also on either side of the niches in the walls of the ardhamāṇḍapa. So in total, there are ten pañjaras flanking five niches. As our illustrations show, the workmanship on the friezes, figures, panels and makaratorṇas is breath-taking. We are inclined to consider these exquisite and exuberant carvings as the result of a successful training period

which started with the decoration of the monuments at Tiruchchennampūṇḍi, Śrīnivāsanallūr and Lalḡudi (cf. Pls. 35a-b, 31a-d and 32).

This view is not really contradicted by Balasubrahmanyam and Barrett, who both suggested a date in the very beginning of the 10th century, implying that it could be earlier, for the record on which they based their opinion does not mention the construction of the building.

A few short remarks should, however, be made because the shrine shows a peculiarity which occurs also on the monuments at Tiruppurambyam and Karandai, viz. the presence of pañjaras on either side of the niches in the walls of the ardhamandapa. The pañjaras and devakoṣṭhas of the Brahmapurīśvara project and are in line with each other. All the pañjaras of both the vimāna and the porch belong to type Ia. This suggests a unity in the concept of the construction, which is less obvious in the other two monuments. At Tiruppurambyam two types were applied: type Ia on the vimāna and type Ib on the ardhamandapa; at Karandai all pañjaras belong to type Ib. Comparing these three temples, the impression is created that experiments were tried out not only in the shape of the pañjaras but also in the layout of the ardhamandapa, for in two of these three shrines the connection between the ardhamandapa and the vimāna was solved in a different way. Whereas the Brahmapurīśvara at Puḷḷamaṅgai has a hall which links up directly with the sanctum, the two other shrines have a kind of corridor in between the sanctum and the ardhamandapa. The porch of the Brahmapurīśvara resembles, moreover, that at Tiruppalanam. In both monuments the ardhamandapa walls are extended on the front. These extensions on either side of the entrance to the ardhamandapa are in line with the central projections on the walls. So, proceeding from the eastern wall of the vimāna we have first a recess followed by a projecting part, then a recess and again a projecting part. In view of the unusual layout of the monuments at Śrīnivāsanallūr and Lalḡudi (pp. 107-08), the shrine at Puḷḷamaṅgai seems to be the third experiment in succession of how to enlarge the interior of a hall (in order to accommodate more people and/or images). Although the composition of the walls of an ardhamandapa and the connection between it and the vimāna are raised as separate subjects in the last paragraphs of this chapter, we should like to mention a few implications at this stage, because it may help to understand why we cannot accept a late 10th century date for the temples at Tiruppurambyam (no. 3) and Karandai (no. 5).

#### 4. The Sāksīśvara at Tiruppurambyam (Pl. 40).

The Sāksīśvara is a dvitala with six pilasters on each wall of the vimāna

and Ia pañjaras which are in line with the projections on the walls (II-3-b). Moreover, the pañjaras are comparable with those at Puḷḷamaṅgai: they rest on an upāna of their own and the size of their adhiṣṭhānas is considerably smaller than that of the main building. On the other hand, we also noticed some differences: the pañjara-base is supported by dwarfs, the upāna rests in its turn on a second upāna decorated with lotus-petals and the vyālis above the kapota-mouldings of the vimāna are absent above the kapota of the pañjara-base. The ardhamandapa is — at least for the observer — separated from the vimāna by means of a small corridor, the so-called false antarāla. The ardhamandapa walls are straight and rather long, for there are — apart from the niche which does not protrude as at Puḷḷamaṅgai — two Ib pañjaras and in total four cut-out niches in each wall. The Ib pañjaras on the walls of this hall differ not only in height with the Ia pañjaras of the vimāna, but also in their crowning elements: a kūdu on the main kapota of the vimāna, a kaṇakuṭī under the main kapota of the ardhamandapa.

The decoration of the shrine at Tiruppurambyam is concentrated on the base and the panels below the vari. Although the kūdus, vyālis and panels are of a good quality, they are not as eye-catching as those at Puḷḷamaṅgai. Since the II-3-b layout of the Sāksīśvara at Tiruppurambyam is almost a trade-mark of the sthāpatis of Āditya I and because the composition and number of pañjaras suggest a close relationship with the Brahmapurīśvara at Puḷḷamaṅgai, we are inclined to consider the former a product of the same workshop. However, in view of its finish and the clearly reduced pañjaras (Ib) on the walls of the ardhamandapa it must be the product of a later generation of artists. The elongated walls of the hall then seem to be their first contribution to a new style as an answer to the probably urgent problem of a shortage of (wall) space. Epigraphical evidence does not contradict this view since the earliest securely dated record is that of the 12th year of Parāntaka I, i.e. A.D. 919. There are some unidentified Rājakesari inscriptions of which Balasubramanyam assumed that they belong to Āditya I, but this seems not to be confirmed by the style of the building as we have just now explained extensively.

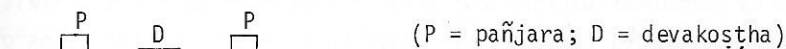
We disagree even more with Barrett who believed this koyil to be roughly half a century younger than we do. However, in our opinion the II-3-b combination went out of fashion at the beginning of the 10th century and returned to favour only towards the end of this century (Fig. 25, p. 92). Barrett supposed that the temple was designed between A.D. 975-985, for the shrine in question shares its type of base with those at Gandaradittam (A.D. 983) and Dadapuram. However, sharing features does not automatically imply the same date as Barrett's own list

may sufficiently prove.

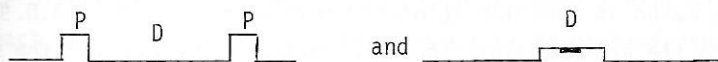
Barrett once more founded his opinion on the presence of a loose Naṭarāja figure with obvious "third phase" features in the central niche of the ardhamāṇḍapa. However, he also stated that this image is contemporary with the other sculptures placed in devakoṣṭhas and recesses, hastily cut out especially for them.<sup>31)</sup> Consequently, we must conclude that the Naṭarāja is part of a new set of figures which had to replace and complement a smaller group—i.e. the customary five—of older icons. Barrett's argumentation based on the way in which the Brahmā figure has been incorporated in the Liṅgodbhava sculpture, then only applies to this later set of images, but it cannot be used for dating the temple. If this monument was built ca. A.D. 975 as he believed, it should have had three niches in the ardhamāṇḍapa and/or a smaller vimāna (I-2-a) (Fig. 25, p. 32). Cutting out niches is an activity indicating the necessity to adapt an older building to a new development.

#### 4. The Gomukteśvara at Tiruvādūturai (Pl. 41).

The Gomukteśvara is an ekatala of the I-2-a type. The layout of its ardhamāṇḍapa is a rectangle with two blind niches on either side of the northern niche; one blind niche and one real devakoṣṭha flank the southern, central niche of the vimāna. There is a false antarāla between the vimāna and the hall. The position of the Ia pañjaras on a I-2-a vimāna seems illogical for two reasons: an ekatala is not sufficiently high for a perfect integration of such tall pañjaras in the total design and secondly, the projecting central part (-2-) of the vimāna wall makes the inevitably protruding pañjaras look superfluous. In fact, the pañjaras on this vimāna project even further than the central niche, creating the following indented ground-plan:

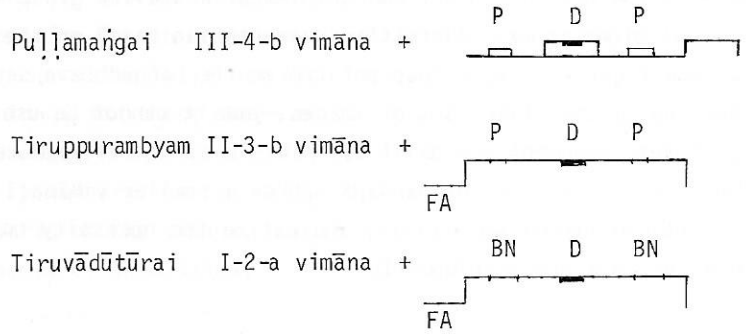


As such it is a combination of two ground-plan variants, viz. that at Tiruveyyum-ūr and the ordinary I-2-a lay-out:



The composition of the pañjara resembles partly that at Tiruppurambyam, for it rests on a double upāna, viz. a lotus-petalled moulding under a raised, straight cornice; the base is identical with that of the main building, but its size is not. On the other hand, the combination of the base mouldings is different from that applied on the monument at Tiruppurambyam: all mouldings including the part above the paṭṭikā are embedded in a padmabandha and the kaṇṭha between the

vari and the paṭṭikā shows a continuous row of lozenges interrupted by panels. If we consider the blind niches of the ardhamāṇḍapa as a rather original alternative of the Ia and Ib pañjara applied at Puḷḷamaṅgai and Tiruppurambyam respectively, it is clear that the temple at Tiruvādūtūrai is the third variant in succession. This variation is also visible in the length and layout of the three ardhamāṇḍapas of the monuments in question:



(P = pañjara; D = devakoṣṭha; BN = blind, shallow niche;  
FA = false antarāla).

Balasubrahmanyam and Barrett agreed that the temple was inaugurated in the 38th regnal year of Parāntaka I, i.e. in A.D.945. However, they disagreed about the year in which the first stones were laid. One of the numerous inscriptions found on the walls of this monument reports that Tirukkarrali Pichchan was the mason of the building. This record dates from A.D.932. Barrett rejected the idea that so much time could have passed between the completion of the shrine and its consecration. However, we should not forget that the second half of the reign of Parāntaka I was by no means as peaceful and quiet as the first half. In a period marked by permanent warfare and loss of territory building-activities may well have been suspended temporarily. Under such conditions the means of transport needed for the supply of granite blocks were possibly confiscated and expensive consecration ceremonies would become financially prohibitive. It is also possible that the mason in question completed merely the vimāna in A.D.932 without even touching the ardhamāṇḍapa. The only support for this view is the shape of the vimāna and the ardhamāṇḍapa. This I-2-a vimāna is situated outside the immediate environment of the capital and right in the centre of the delta (maps 3 and 5), where this type was first applied at Melatiruppūndurutti. In the centre of the delta the I-2-a vimāna became popular around A.D.970 (Fig. 25, p.92) but without pañjaras in whatever shape. The fact that the Gomukteśvara at Tiruvādūtūrai shows the I-2-a variant in combination with pañjaras, proves that the building

represents the transition from one period to another, i.e. from the phase of the complex II-(3 or 4)-b vimānas with Ia pañjaras to that of the I-2-a shrines which came into being adorned with pañjaras belonging to the other three distinguished types.

According to Barrett the Gomukteśvara at Tiruvādūtūrai is the first temple in which the concept of three niches was tried out on the walls of the ardhamandapa. However, the northern wall of this hall has one devakoṣṭha in the normal place and not three as Barrett suggested in his ground-plan.<sup>32)</sup> In the southern wall the usual central niche has been reserved for Gaṇeśa. To the right of Gaṇeśa is an extra niche for Agastya. This asymmetrical concept obviously did not satisfy the architect, for he added a blind niche to the left of Gaṇeśa. He apparently knew that the sculptors were unable to invent a suitable companion for Gaṇeśa in this second, extra niche.

These blind niches in Barrett's drawing illustrating variant IIe of his typology of the ground-plan are not quite correct, for they clearly do not interrupt the vari, implying that in the northern ardhamandapa wall the vari is interrupted at one place only, i.e. by the Durgā niche, and in the southern wall in two cases only, i.e. by the niches of Agastya and Gaṇeśa. Thus, Barrett's third niche is not a niche in the strict sense.

The long period of construction which seemed unacceptable to Barrett, can be explained, by information about the building history of another monument not far off, i.e. the Maṇavaḷeśvara at Tiruviḷakkuḍi (no. 5, appendix 10) built between A.D. 959-70. According to numerous records on its wall this shrine was financed by the local population and some army-units. The financial contributions varied from "one quarter" of the temple to individual building-stones or images. Collecting the money probably took quite some time and explains the difference of almost eleven years between the first and the last endowment to the temple reported in the records. The monument has cut-out niches in the walls of its ardhamandapa. This means that the building was completed before A.D. 970, for otherwise the sthāpatis would have designed a hall with three niches in each wall.<sup>33)</sup> This shows that the concept of an ardhamandapa with blind niches — as applied at Tiruvādūtūrai — was not necessarily the fore-runner of the ardhamandapa with three niches. For even if there was no money for images — as apparently was the case with the koyil at Tiruviḷakkuḍi — then the concept of the blind niches could still have been copied. Consequently, we believe that these blind niches, which constituted such an important argument in Barrett's theory about the development of the ardhamandapa, were not the first announcements of a new style, but merely replacements of the compli-



cated pañjaras and, therefore, the aftermatch of an already full-grown concept.

The Agastya niche has no influence whatsoever on the layout of the ardhamaṇḍapa, for its floor lies above the paṭṭikā. The controversy about the start of the construction of the Gomukteśvara at Tiruvādūtūrai results among others from the fact that a record from A.D. 945 mentions that the building was completed from the kudap-padai upwards. This is an architectural term of which nobody knows to exactly which part of the temple it applies. Barrett interpreted it as the kumuda, the element of the adhiṣṭhāna under the paṭṭikā. Balasubrahmanyam believed it to be a layer somewhere higher up on the temple walls or even a part of the superstructure. However, in both cases the layout of the shrine remains unaffected. A discussion about the date at which the kōyil was completed from whatever part upwards is therefore irrelevant. On the other hand, it is important to know when the idea arose to introduce structural changes in old designs. It seems to us that this must have started after the building at Tiruppurambyam was raised (A.D.910-925). Since the Ia pañjara on the II-3-b vimāna at that place does not show this loss of function, the Gomukteśvara at Tiruvādūtūrai was almost certainly designed considerably later but before A.D.932, the year of the record in which the mason is mentioned. This implies that the inscription of the third regnal year of a certain Parakesari either is an old Parāntaka I record, from A.D.910, or should be ascribed to another Parakesari, i.e. most probably Ariñjaya, one of his sons. Since the inscription mentions the same person as a record dated twenty-two years later, i.e. A.D.932, but then with the important addition that he is the builder of the shrine, Balasubrahmanyam believed that the monument in question dates from A.D.910. However, this seems a wrong conclusion. In the first place the person in question is not described as the builder of the vimāna in the controversial Parakesari record, but in the inscription of A.D.932. Secondly, that particular record could equally be assigned to the third regnal year of Ariñjaya, i.e. A.D. 959. In this case the lapse of time is twenty-seven years as against twenty-two according to the other interpretation. If one allows twenty-two years as an acceptable period for the survival of the mason, then five more years do not make a great difference.

Since the simple layout of this shrine is not compatible with the early date of A.D.910, whereas the year A.D.932 is consistent with the supposed, slow deterioration of the architectural development during the rule of Parāntaka I, we propose A.D.932 as the year in which the construction of the temple was started, or any date after A.D. 925, the year in which the temple of Tirupparambyam was definitely completed.

*A. The Vasītteśvara at Karandai (Pls. 42a-b).*

The Vasītteśvara is an ekatala of type I-2-a. The ground-plan of both its vimāna and its ardhamandapa is identical with that of the vimāna at Tiruvādūtūrai, implying that the protruding pañjaras are flanking the protruding central niche in the walls of both the vimāna and the ardhamandapa. Each pañjara stands on an abacus of its own, its base is identical with that of the main building, but slightly smaller. The shrine lacks the refinement of the other monuments discussed so far. On the other hand, we are confronted with a rather unexpected feature occurring under the palagai: the so-called idaḷ or munai, i.e. the pointed ends of the reverse kamala or lotus (appendix 5, aspect 16, no.4).

Due to the scarcity of inscriptions Balasubrahmanyam considered this monument as a product of the days of Uttama Coḷa. Yet, at the same time, we felt that it could also have been built during the reign of Parāntaka I. There is an abundance of images in small, ungainly recesses both in the walls of the vimāna and in those of the hall. It is evident that the walls had to be spoilt in order to accomodate this huge number of sculptures. Only with Śembyan Mahādevī it became customary to add as many figures as possible. We, therefore, agree with Balasubrahmanyam that these recesses were cut out in despair, because this koyil is too small for such a large number of images. When Barrett, nevertheless, classified this shrine in his third phase on account of its sculptures, we wonder with Balasubrahmanyam how a building can be contemporary with sculptures standing in niches which were obviously cut out right across the inscriptions. On these grounds alone we have to reject Barrett's dating.

The temple must have been built before A.D.970, the year in which the first ardhamandapa with three niches was constructed (Fig. 25, p. 92). Our argument (p. 121) that the presence of Ib pañjaras on the walls of this ardhamandapa indicates that it was designed soon after the Gomukteśvara at Tiruvādūtūrai still stands. We believe that this last shrine was erected not long after the temple at Tiruppurambyam because it already has the extended ardhamandapa walls, although the complicated pañjaras were given up. Furthermore, the new concept of blind niches — consisting of two half-niche pilasters, a lintel and a makara-torana, did not find favour in the eyes of the sthāpatīs at Karandai so, here we see once more pañjaras on the ardhamandapa walls, but this time under the cornice — perhaps a reminiscence of the blind niches which do not reach to the attira either.

Because we shall bring forward more arguments to date the shrine at Kōyil-āḷvārāyanpēṭṭai (no.7) decorated with Ib pañjaras around A.D.940, the Ib temple at Karandai can be dated between A.D.932 (Tiruvādūtūrai) and 940 (pp.129-30).

6. *The Jñānaparameśvara at Tirumayānam* (Pls. 43a-c).

The Jñānaparameśvara has a 1-2-a vimāna. Its ardhamandapa is attached directly to the vimāna. There are only five niches in the entire building. The pañjara present on the walls of the vimāna only — represent type IIb, implying that they are not incorporated in the ground-plan.

Barrett pointed out that this vimāna is virtually identical with that at Karandai (no.5). Consequently, he dated the shrine at Tirumayānam ca A.D. 985. It is, however, obvious that the resemblance cannot be that strong, for the pañjara of the two monuments in question belong to different categories and the temple on which they occur, therefore, to different periods. Barrett's other arguments are not convincing either. He considered the base of the koyil at Tirumayānam transitional because the vyāli frieze — normally present above the rounded kumuda and padmabandha — is replaced by a straight kaṇṭha and paṭṭikā (his type B2), whereas the base at Karandai is his type B2a (Fig. 14, p. 66). We believe, however, that the shrine at Tirumayānam was rebuilt from the rounded kumuda upwards as we shall demonstrate shortly, which implies that this base is not a representative of a transitional phase but an accident.

Balasubrahmanyam, on the other hand, believed this monument to be one of the earliest, original Āditya I temples on account of the pullis in an inscription issued in the 2nd year of a Rājakesari.<sup>34)</sup> In view of the "modern" appearance of the koyil, we must take these pullis as an exercise in calligraphy. Nothing in the building justifies a year of construction as early as A.D. 872. Confining ourselves to the ground-plan variant and the type of pañjara, the 1-2-a combination is common in the eastern part of the delta (cf. map 5 and Fig. 30a, p. 103), whereas the short pañjara without a proper base is a completely new type which has lost its function. The sthāpati must have felt insecure when he wanted to incorporate this element into the building. He obviously did not understand its actual purpose, which is reflected in the unique way in which he experimented. Pls. 43a-c show that the pañjara retains some kind of individuality: its adhiṣṭhāna mouldings do not coincide completely with that of the vimāna. The vari runs lower than the main vari, while the paṭṭikā and the kaṇṭha protrude slightly. These details support our opinion that at least the upper part of the shrine must have been built after the Vasītteśvara at Karandai. Pl. 43c reveals a further peculiarity: the slightly protruding kaṇṭha of the pañjara is placed on the rounded kumuda which does not show a projection in that place. Moreover, the praṇāla is located in the jagatī, indicating that the floor level of the temple coincides with the top of the jagatī. So, this koyil was probably renovated from the jagatī upwards. The layout could then date from the days

of Aditya I, presumably from the last decade of the 9th century, for the I-2-a layout was tried out for the first time on the shrine at Melatiruppūndurutti (A.D.885) and afterwards at Lalgudi (A.D.898). The upper part of the building can only have been added later, but before the period in which three niches in the walls of the ardhamaṇḍapa became customary, i.e. before A.D.970, for it is rather easy to extend the floor of an ardhamaṇḍapa. If the renovation of this koyil had been entrusted to the architects of Śembyan Mahādevī, then they would certainly have designed a layout with three niches in the ardhamaṇḍapa. But even if this was not the case, i.e. that the collapsed ardhamaṇḍapa was not reconstructed by these sthāpatis because they wanted to retain the original layout — possibly in order to avoid cutting extra blocks for the ogeed moulding required for both the false antarāla and the further enlargement of the floor — then the renovation must still have taken place before A.D.970. For we believe that the IIB pañjara displayed on this monument is probably an accidental shape, in the sense that the sthāpatis of this koyil with its undamaged base were forced to use the Ib type of pañjara applied at Karandai on mouldings which did not have the protruding parts normally under the upper parts of a pañjara. Now, this "accidental" pañjara at Tirumayānam, which can be understood only if our explanation is accepted, has been copied on the temple at Kōyildēvarāyanpēṭṭai dating from A.D.940 as we shall point out shortly. Consequently, we are convinced that the shrine at Tirumayānam in its present shape was completed between A.D.932 - 940. As we have just said that the two koyils at Karandai and Tirumayānam were erected in this very sequence, we suggest a year of construction between A.D.932-935 for the shrine at Karandai, while that at Tirumayānam was probably completed between A.D. 935-940.

#### *P. The Matsyapūrīśvara at Kōyildēvarāyanpēṭṭai (Pl. 44).*

The Matsyapūrīśvara is at present a II-2-a vimāna with an ardhamaṇḍapa attached directly to it and with a niche in each wall. This plain building gives the impression of having been completed recently. It shows no sculptural decoration whatsoever but is engraved with a large number of inscriptions. The shrine looks like an imitation of some older koyil, the more so because it represents the impure II-2-a form, which is otherwise unknown in the delta. The original building could have been an ekatala on the same ground-plan, a common type in that area in the middle of the 10th century.

The roof was probably rebuilt several times, i.e. at first replaced by a brick superstructure. Now, renovators often added an extra brick tala to an originally granite ekatala because they preferred a high building. The hybrid

form of the Matsyapūrīśvara resulting from a supposed renovation and consisting of a first storey of granite and a superstructure of brick was improved during the most recent restoration when the brick roof was replaced by a stone pyramid thus creating the anomaly of a II-2-a vimāna.

We believe that the first tala of the present building is a carefully executed modern copy of the original which was engraved with inscriptions dating from A.D.945 onwards. The shape of its pañjaras has deteriorated even further in comparison with that at Tirumayānam, for the vari runs at the same height as the paṭṭikā of the main building, whereas its own paṭṭikā has disappeared.

The inscription of the 38th regnal year of Parāntaka I — mentioning a gift of the 17th year of a Rājakesarivarman (A.D.887 according to Balasubrahmanyam) indicates that the renovated shrine must have been in existence in A.D.945 and is located on the site of an older Śiva koyil. Unfortunately, there is a record dated from the 9th regnal year of Uttama Coḷa, i.e. A.D. 978 which reports a gift for the sacred bath of the deity — a ceremony following, according to Barrett, the completion of a temple. This could be taken as an argument against our point of view. In our opinion a different interpretation of the record is possible. The sacred bath of the deity could well mean what it indicates in the first place, i.e. the sacred bath of the image of the deity to which the shrine was dedicated. This ceremony occurs occasionally, and not necessarily only on the day of the abhiṣeka, i.e. the inauguration ceremony of a new temple. However, Barrett probably considered this "sacred bath" as the abhiṣeka because, otherwise, he could not explain the third phase characteristics of the images.

#### 8. *The Viṣamaṅgaleśvara at Tudaiyūr (Pl. 45a-b).*

The Viṣamaṅgaleśvara is an ekatala of the type I-2-a with an ardhamandapa attached directly to it and with only one niche in each wall. Its pañjaras belong to type IIa and are ugly.

There is a difference of nearly a century between the dates suggested for this monument. Balasubrahmanyam merely took the presence of a loose Vīṇādhara Dakṣiṇāmūrti image as a criterion for dating and believed that this representation of Śiva was known in the 9th century. There is no documentation to confirm this view. Barrett was merely mesmerized by a miniscule panel in the wall kaṇṭha representing Naṭarāja, which according to him occurs for the first time at Tiruchchennampūṇḍi in A.D.920 (p.105). On grounds of the unreliable sculptural evidence Balasubrahmanyam ascribed a Rājakesari record with a 5th

regnal year to Āditya I, while Barrett interpreted the same as a Gaṇḍarāditya inscription. Although we do not accept Barrett's argumentation, we cannot agree with an early date either. For, if the temple would have been built during the reign of Āditya I, its top-heavy IIa pañjara must be compared with the elegant Ia pañjaras at Puḷḷamaṅgai and Tiruveṇṇambūr (cf. Pls. 38b and 39). This Ia type persists as a standard feature on temple walls until at least A.D. 932 (Tiruvā-  
ditturai). The imperfect IIa variant at Tudaiyūr is then an inexplicable phenomenon. However, if we assume that the construction started around A.D. 950 this anachronism can be eliminated, for this is the period in which the architects tried to reshape the Ia and Ib variants as the examples at Tirumayānam and Vīḷḍēvarāyanpēṭṭai may sufficiently prove. However, the temple at Tudaiyūr displays two more unexpected features: the polygonal kāl and the munai under the palagai. These details, to be discussed in the next chapter, went out of fashion during the first years of the 10th century. Therefore, this shrine fits neither into the end of the 9th century nor does it seem to belong to the days of Parāntaka I. Consequently, we have to postpone a decision about the date of this temple.

#### II. The Uktavedeśvara at Kuttālam.

The Uktavedeśvara is a II-2-b vimāna. Its ardhamandapa has three niches in each wall and is connected directly with it by means of a false antarāla. Its Ib pañjaras appear only on the vimāna walls which makes it distinctively different from, for instance, the monuments at Tiruppurambyam and Karandai.

The shrine was built before A.D. 992. This is about half a century after the last Ib pañjaras were designed in the delta and some twenty years after the construction of the first ardhamandapa with three niches in the walls attached to a vimāna without pañjaras (at Kuhūr, A.D. 970). Consequently, the shrine at Kuttālam displays a return to archaic forms. In the last two paragraphs of this chapter we shall show that after A.D. 990 archaisms became popular.

#### III. The Ten Kailāsa at Tiruvaiyārū (Pl. 47).

The Ten Kailāsa is situated south of the Pañcanāḍīśvara at Tiruvaiyārū in the same large temple compound. It is a II-4-b vimāna with an ardhamandapa attached directly to it. This hall has three niches in each wall. The Ib pañjaras are only present on the vimāna walls as rather unobtrusive decorations within the recesses.

It is assumed that this temple was built during the reign of Rājendra I, i.e. after A.D. 1014, because this king donated some old, but beautiful Cāḷukya



pillars to the shrine. However, we hold the view that this monument belongs to the period of Rājarāja I which we hope to prove in the paragraph concerning the ardhamāṇḍapa variants. In previous publications the style of the temple was never used as a criterion for dating and no records of either Rājarāja I or Rājendra I have been discovered on the building. So, it seems rather arbitrary to attribute this monument to the period of Rājendra I merely because he robbed a number of pillars from the Cālukya area and donated them to this shrine. Neither the pañjaras, nor the shape of its ardhamāṇḍapa nor — as we shall see — the profile of its podigai support such an attribution.

11. *The Śiva Koyil at Manampādi* (Pls. 46a-b).

As far as we know this temple is not mentioned in any publication. It lies completely hidden in a palmgrove along the road between the Lower Anicut and Kumbakonam. The vimāna has a II-4-b ground-plan, there are three niches in each wall of the ardhamāṇḍapa and I Ib pañjaras on either side of the niches in the walls of the vimāna. This will prove to be the earliest case of a pure I Ib type. In all other examples experiments were made to reduce the tall Ia variant into the smaller I Ib pañjara. The pañjaras on the koyil at Manampādi no longer show this searching for new forms. This indicates that it was designed after that disorderly period. In our opinion this shrine is typical for the last years of the 10th century in view of its combination of a complex vimāna, pañjaras and six niches in the two walls of the ardhamāṇḍapa.

For the moment we can say no more than that it resembles in many respects the Ten Kailāsa at Tiruvaiaiyāṇṭū, except that the pañjara of the latter stands on a paṭṭikā of the vimāna, while that at Manampādi protrudes slightly from the paṭṭikā upto and including the vari, giving this element a measure of independence.

12. *The Vatamūleśvara at Kīlappaḷuvūr* (Pl. 48).

The Vatamūleśvara is a I-2-a vimāna with an ardhamāṇḍapa attached directly to it and with real niches only in the vimāna walls. There are, however, cut-out devakoṣṭhas in each wall of the ardhamāṇḍapa.

In contrast to the situation just described, in which lack of inscriptions created problems, the Vatamūleśvara at Kīlappaḷuvūr is controversial due to its records, since they can be interpreted in two different ways. Before reviewing their contents some remarks should be made about the stylistic features of this building. Its pañjaras are very strange indeed. The two pilasters break through the paṭṭikā of the vimāna and stand directly on the kumuda. They do not protrude

is normal in other shrines, but are in line with the paṭṭikā. Furthermore, a reversed lotus on the kapota of the pañjara can be noticed. It looks like a poor reduction of the example on the Matsyapūrīśvara at Kōyildēvarāyanpēṭṭai (Pl. 44), where the lotus was still a śikhara-like ornament on the tiny temple above the kapota of the pañjara. On the monument at Kṭlappaḷuvūr the residue of such a shrine has completely vanished for the lotus lies immediately on the lintel. As a result of this the character of the pañjara was lost and the suggestion of a devakoṣṭha is evident except for the fact that the pilasters break through the paṭṭikā. Since the floor of a niche always has the same level as that of the vimāna, the interrupted paṭṭikā indicates that the architects no longer understood the significance of the pañjara.

Strangely enough, the controversy about this temple results from inscriptions in which its founder is mentioned. This information, interesting in itself, creates nothing but trouble, as Balasubrahmanyam used it for a long argument against Barrett, in the course of which he rejected in passing the whole stylistic development suggested by Barrett. In addition Balasubrahmanyam tried to prove that the inscriptions of Parāntaka I are genuine and that the building therefore already existed in A.D. 919, or at the very latest in A.D. 922. This last date is derived from an inscription engraved in the 15th regnal year of a Parakesari. Barrett interpreted it as a record of Uttama Coḷa and therefore concluded that the koyil was completed in A.D. 984 by a chief called Paluvettaraiyan Maravan Kandan.

Balasubrahmanyam suggested a compromise, viz. that Paluvettaraiyan Maravan Kandan did not so much complete the vimāna, as the whole temple complex including all surrounding buildings, walls and gopuras around A.D. 984. Unfortunately, this suggestion does not solve the problem, viz. the exact date of the vimāna with its mysterious style. In this connection the possible date of the additional buildings in the temple compound is completely irrelevant.

It is clear that we have to formulate our views on the basis of stylistic characteristics only. Now, the shrine lies outside the main stream of the delta, both in the literal and the figurative sense. For, its ardhamandapa has no real niches. This already indicates that the architect did not follow the delta idiom, in which one niche was customary around A.D. 920 and around A.D. 980. The same applies to the shape of its pañjaras.

The inscription tells us that the construction was a "local affair". Let us assume that the architect was slightly aware of recent developments. Had the temple been completed ca. A.D. 920, he would have copied the pañjara of the

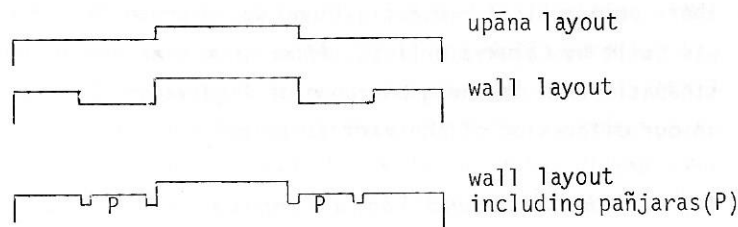
Brahmapurīśvara at Puḷḷamaṅgai, not far off. In that case his interpretation of this extraordinarily harmonious and elegant pañjara can be compared with the imitation of a professional calligrapher by an illiterate. On the other hand, around A.D.984 the architect of the shrine at Kṭṭappaḷuvūr could have copied: the pañjaras at Puḷḷamaṅgai, Tirumayānam, Tiruvādūtūrai or Kōyildēvarāyanpēṭṭai. From the above discussion it appears that he found his inspiration at the last village. This reasoning seems to follow the course of least resistance, but it does fit into the notion that the final phase which the pañjara concept had meanwhile reached in the Kāverī delta, coincided with the adoption of this ornament by the people in the backwaters. The pañjara at Kṭṭappaḷuvūr is the product of an obviously uninspired person who did not know how to handle an old concept, whereas the last representative of the I Ib pañjara in the delta — at Kōyildēvarāyanpēṭṭai — still shows some of its original features.

13. *The Amaleśvara at Goburapatti* and 14. *the Sāmavedeśvara at Tirumaṅgalam* (Pls. 49-50). These two shrines are discussed together because, in our opinion, they date from more or less the same time and are located in the same restricted area. They lie north of the Coleroon, like the monument at Tudaiyūr (no. 8), but in contrast to the latter they show the II-4-b and II-3-b layout respectively. As we have seen in Fig. 25 (p. 92) these forms became popular again during the reign of Śembyan Mahādevī. However, neither of these buildings has the two extra niches in the ardhamandapa walls and the false antarāla which are characteristics of this period. Of course, this could be taken as a regional variant of the area north of the Coleroon. On the walls of these shrines donations of Śembyan Mahādevī, Rājarāja I and later kings are commemorated. The years mentioned in these records were without further comment used by Balasubrahmanyam in order to date the Amaleśvara at Goburapatti ca. A.D.981 and the Sāmavedeśvara at Tirumaṅgalam ca. A.D. 990.<sup>35</sup>) Both temples obviously enjoyed the warm attention — always expressed financially — of the Coḷa dynasty. If we assume, therefore, that they were built between A.D.970 and 990 — a possibility which certainly applies to the Amaleśvara, provided a record of A.D.980 is genuine — then we must all the same point out that far outside the delta — at Vriddhāchalam in South Arcot — a temple was commissioned by Śembyan Mahādevī, which shows all the characteristics of her workshop, such as a shrine with a false antarāla, three niches in the ardhamandapa walls and no pañjaras.

We cannot believe that temples constructed by her workshop near the delta would deviate from the design typical of her workshop, the more so, because after A.D.990 a period of diversity started. This diversity consisted of certain

changes in the design which had been applied in the first group of Śembyan Mahā-  
 wall monuments such as the absence of the false antarāla (as on the Acaleśvara  
 at Tiruvārūr of ca. A.D.991), the return to one niche in the ardhamandapa (cf.  
 the shrines at Dadapuram dating from just before A.D.1006), the presence of a pañ-  
 jara on the walls of either the vimāna or the ardhamandapa (as on the temple at  
 Kuttālam of A.D.992) and the introduction of a high upāna. In view of all this  
 we believe that the two monuments at Goburapatti and Tirumaṅgalam were construc-  
 ted after A.D.990 or even around A.D.1000. The latter date occurs on both shri-  
 res and mentions valuable donations for sacred baths, made by the royal house-  
 hold. Between this record and the oldest of the preceding inscriptions lies a  
 period of ten to fifteen years. It is quite possible that in the intervening  
 time — after a visit by the king or queen during which the dilapidated condition  
 of the temples may have been noticed — a decision was taken to pull them down  
 and replace them by two completely new buildings.

The I Ib pañjara at Tirumaṅgalam (Pl. 50) is comparable with those at Manam-  
 alai and Tiruvaiaṅṅū (Pls. 46a-b and 47). The Ia pañjara at Goburapatti (Pl. 49)  
 is a clever imitation of a centuries-old form. We should like to draw atten-  
 tion to the inconspicuous way in which the adhiṣṭhāna of the pañjara is incor-  
 porated into that of the vimāna. In fact, we are inclined to classify this pañjara  
 as an extremely successful application of the IIa variant, for the impression is  
 created that its own adhiṣṭhāna is fully integrated in the main base. This  
 visual effect results from the layout of the upāna which belongs to the -2-  
 variety. The walls of the vimāna are divided in a way that resembles the -4-  
 form with the pañjaras as an extra addition:



At first sight the main adhiṣṭhāna has a -2- ground-plan, but on closer inspec-  
 tion it appears to consist of five projections divided by very narrow recesses  
 which could almost be called slits.

In view of the above considerations, both temples can be dated between A.D.  
 990 and 1000 but which of the two is older cannot be decided on the basis of  
 the applied criteria.

15. *The Tirutiṇḍīśvara at Tiṇḍivanam* (Pls. 51 and 69a-b).

This temple has exactly the same characteristics as the Sāmavedeśvara at Tirumaṅgalam (Pl. 50), i.e. a IIB pañjara, no false antarāla, one niche in the ardhamaṇḍapa and a II-3-b lay-out. This would imply that the monument at Tiṇḍivanam in the present South Arcot District, was built only after A.D. 990. As it lies in an area where the Rāṣṭrakūṭas repeatedly attacked the Coḷas,<sup>36</sup> a regional variant is likely. This assumption is supported by Balasubrahmanyam's view that this temple in any case existed already in A.D. 960, i.e. 30 years earlier. For he interpreted the year 5 of a Rājakesarivarman to be the 5th regnal year of Sundara Coḷa, alias Parāntaka II (A.D. 956-73).

In itself a IIB pañjara—this time on the vari—which represents the final phase of a development starting at Tirumayānam (pp. 128-29), could well occur on a temple dated in A.D. 960. This implies that all temples with a IIB pañjara were constructed in the delta before this time, which does not contradict the chronological sequence suggested by us so far (appendix 8). The problem with this temple is, that its ground-plan is either too old or too young. As far as we know there is no shrine anywhere in the Coḷa realm which dates from the middle of the 10th century and represents the II-3-b type, at least if we estimated the age of the three vimānas north of the western Kāverī, just discussed, correctly. However, we believe that the koyil at Tiṇḍivanam was probably renovated from the vari upwards. For there is a remarkable difference in finish of the adhiṣṭhāna and that of the rest of the building, as can be seen clearly in Pl. 51. What is more, the style of the adhiṣṭhāna displays unmistakable Cāḷukya characteristics (cf. Pls. 5-9). We would not be surprised if further epigraphical investigations would prove that the lower part of the temple was built by Cāḷukya artists. After some time the shrine was then finished by sthāpatis from the neighbourhood of Tiṇḍivanam. We shall return to this monument in our discussion of the vari variants.

16a-b. *The Śiva and Viṣṇu temples at Dadapuram* (Pls. 52a-b).

These monuments were built at about the same time. The Śiva koyil is a II-4-b vimāna with a false antarāla and one niche in each wall of its ardhamaṇḍapa. It stands on a raised upāna with a -2- ground-plan.

The Viṣṇu shrine is a tritala, but in all other respects it is identical with the Śiva koyil in the same village. Although the sthāpatis of both temples selected the most "royal" layouts known in those days, the decoration is not as splendid as could have been expected of shrines commissioned by members of the ruling family (cf. for instance the monuments at Vriḍdhāchalam, Kuttālam, Gobura-

atetti and Tirumaṅḡalam (Figs. 41b-c, p.211). We know that both buildings were completed in A.D. 1006. The use of the Ib pañjara conforms with the revival of archaisms observed in the Uktavedeśvara at Kuttālam (p.131). The design of both shrines confirms our previously expressed supposition that both the old pañjara variant and the II-4-b vimāna returned to favour. In this case we would not like to use the expression "regional variant", although Dadapuram is not far from Tiṇḍivanam. The record so emphatically tells us that both temples were built under the patronage of the eldest sister of Rājarāja I, that we must consider their excentric location as a fortuitous circumstance.

#### 37) *The Kaṇḍalīśvara at Tennēri.*

This is a II-4-b vimāna with pañjaras already strongly resembling a blind niche, for the kapota has disappeared and the top is no longer a kūdu but a small makara-śaṅkha. All this remains under the main kapota and stands on the vari of the vimāna. So, although this temple can strictly speaking no longer be counted among the IIb pañjara shrines, we include it in our discussion to show how easily a pañjara can change into a niche, a development which we have observed in the reverse order about A.D.900 (p.113). The Kaṇḍalīśvara was formerly called the Uttamasolīśvara. Balasubrahmanyam assumed that it was erected in memory of Uttama Coḷa around A.D.995, since this is mentioned in an extensive record of that year. The style of the monument is in concordance with this date. The building has three niches in the walls of its ardhamandapa, but the false antarāla is already missing. Since the pañjara-like niches become again real niches in the case of the vimāna of the Acaleśvara at Tiruvārūr (A.D.991), which otherwise shares its main features such as layout and number of niches with the Kaṇḍalīśvara, we consider them both as products of the same workshop, although their locations are far apart. Moreover, from the inscriptions it appears that the Kaṇḍalīśvara received the attention of many Coḷa princes, which would explain its resemblance to the monuments built in the delta at the turn of the century.

#### 34. Description of other vimānas in the pañjara region: consequences of the proposed chronology for their dating.

If our suggestion is correct, i.e. that between A.D.910 and 970 exclusively vimānas with pañjaras were built in the delta, then a number of shrines become controversial, because they were designed during that period according to Balasubrahmanyam and/or Barrett, but do not have that type of wall decoration. The names of the villages in which these monuments are situated are listed in ap-



pendix 9 which is a continuation of appendix 8. Their locations and numbers correspond with those on map 6A. We shall now discuss them.

18. *The Madhuvaneśvara at Tirukkaḷuvūr* (Pl. 53).

According to Balasubrahmanyam this temple was built during the reign of Āditya I, although its earliest record dates from A.D. 918. The I-2-a layout of the vimāna relates it to that at Melatiruppūndurutti — one of the Sapta Sthānas. Both shrines have an octagonal gr̥tvā-platform, but, whereas the śikhara at Tirukkaḷuvūr is octagonal, that at Melatiruppūndurutti is circular. The way in which the ardhamāṇḍapa with one niche in each wall is connected with the garbhagrha is also shared by both temples. If the epigraphist and Balasubrahmanyam were right in assuming that the Rājakesari inscription is a record of Āditya I, i.e. A.D. 888 and, moreover, genuine, then not only the temple at Tirukkaḷuvūr was designed before A.D. 888, but also its proto-type, the I-2-a shrine at Melatiruppūndurutti. This does not contradict our suggestion, formulated earlier (p. 104) that the II-2-b vimānas of the Sapta Sthāna group were constructed ca. A.D. 885, while the only I-2-a shrine at Melatiruppūndurutti might be slightly later.

The Madhuvaneśvara at Tirukkaḷuvūr displays a striking frieze over the kapota of its ardhamāṇḍapa. It represents an exuberant party of racing horses, elephants and their riders, obviously copied from a Pallava monument, viz. the Sundara Varadarāja Perumal at Uttaramallūr where it occupies the same lofty place.<sup>38)</sup> A similar frieze is found on the Saptarṣīśvara at Lalgudi (Pl. 32), a monument carrying inscriptions on its walls dated in the 27th regnal year of Āditya I, i.e. A.D. 898. Here, the frieze is in the right place, viz. over the kumuda of the adhiṣṭhāna. So, the buildings at Tirukkaḷuvūr and Lalgudi are linked directly by their unique friezes. The shrine at Lalgudi can be considered as a continuation of that at Tiruvaiaiyārū, for, although the latter is a dvitala with a II-2-b layout (no. 5, appendix 7), they both rest on a lotus base.

As already mentioned, the temple at Tirukkaḷuvūr is a copy of the I-2-a vimāna at Melatiruppūndurutti both standing on a straight base. They can be interpreted as products of the first wave of building activities in and immediately outside the small Sapta Sthāna area, during which further experiments with basic forms were tried out. Since the I-2-a koyil at Lalgudi dates from before A.D. 898, the year A.D. 888 is acceptable for the monument at Tirukkaḷuvūr, the more so, since the architect of the former incorporated the new design of the frieze harmoniously into the total concept of the shrine, whereas the builders of the temple at Tirukkaḷuvūr used it only on the roof of the porch.

38. *The Vedapurīśvara at Tirukkalitṭattai* (Pl. 54).

The Vedapurīśvara is an ekatala of type I-1-a with a small ardhamandapa connected directly to it. In all there are only five niches in the entire building.

According to Balasubrahmanyam this humble shrine was already known in its present form during the days of Parāntaka I, since its oldest inscription mentions the 22nd regnal year of a Parakesarivarman which can only refer to this ruler. It must therefore have existed already before A.D.929. Most of the other early records are damaged.

This I-1-a vimana lies not far from Tiruvaduturai (no. 4). If the inscription of A.D.929 belongs to the present building this would imply that it is contemporary with the Gomukteśvara at Tiruvādūtūrai which has a vimāna with 16 pañjaras. This is hard to imagine. Considering the absence of decoration and the damaged condition of the records we are inclined to believe that the shrine at Tirukkalitṭattai was renovated at a time when financial means for work on religious buildings were scarce, i.e. during or immediately after the war with the Rāṣṭrakūṭas, so after A.D.950. One point would seem to contradict this view: the absence of a false antarāla which is the most characteristic aspect of shrines built in the 10th century (appendix 10). However, it can be taken for granted that temples financed with small means during that same period, did not need large ardhamandapas and consequently no false antarāla, because the poor villagers could not afford the images for the niches.

39. *The Gaṅgājaṭādhara at Gōvīndaputtūr* (Pls. 55a-b).

In contrast to the preceding I-1-a temple, this I-2-a building has a connecting part between the ardhamandapa and the vimāna, at least it seems so from the outside. According to Balasubrahmanyam the construction of this temple was started ca. A.D.929 and finished only some 50 years later. Barrett refused to accept such a long, drawn-out period of construction and assumed that the monument was built ca. A.D. 982. The record dated in this year tells us that a non-royal person Ambavalan Paluvur Nakkan from Kolar and a nobleman of the king's council, donated the first of his many gifts to this temple already in A.D. 979. Although Balasubrahmanyam was right when believing that the layout of this shrine represents the style of Parāntaka I and, consequently, must be a building raised during his reign, we would rather agree with Barrett's opinion, though we realize that there is only one niche in every wall of the ardhamandapa instead of three, a feature which became customary after A.D.970 (Fig. 25, p. 92).

The temple at Tirukkuhukavūr in the Sirkali Taluk in the far northeastern tip of the delta has the same layout as that at Gōvīndaputtūr. Fortunately,

there is a most reliable inscription reporting that the koyil at Tirukkuhukavūr was completed in A.D.982 i.e. after the end of the pañjara phase. It was also financed by an ordinary citizen, Semban Arulan Uttama Nidhi, alias Uttama Coḷa Muvendavelan, the same person who in A.D.984 built the shrine at Gandaradittam with exactly the same layout.

Comparing these three "citizen koyils", some interesting features can be observed. First of all, the adhiṣṭhānas of the temples at Gandaradittam and Gōvīndaputtūr betray the same workmanship and were probably designed by one and the same artist. Both have a kapota-moulding decorated with small, but delicate kūḍus and a rounded kumuda. Secondly, the entire building at Gōvīndaputtūr stands on an ogeed, lotus-jagatī; that at Gandaradittam is placed on a straight moulding which in its turn rests on an upāna decorated with a padma-bandha except for the central, protruding parts. In the third place, the ornamental quality of these two neighbouring monuments is not repeated in the third "citizen koyil" situated in the extreme east of the delta. For, here all parts of the base are straight and plain. It is therefore likely that the people of Gōvīndaputtūr and Gandaradittam were able to attract more talented artist from the workshop of Śembyan Mahādevī than the architect appointed by the villagers of the shrine at Tirukkuhukavūr.

Consequently, we tend to regard the ardhamāṇḍapas with three niches as a kind of hall-mark of the temples financed by Śembyan Mahadevi. Perhaps only she, being a queen, had the means to bear the cost of the six sculptures, needed for this type of māṇḍapa. For the moment we can draw the tentative conclusion that between A.D.970 and 990 ardhamāṇḍapas with three niches as well as with only one niche were built, depending on the person who had financed the construction.

#### 21. *The Ādimoulīśvara at Tiruppaltuṇṇai* (Pl. 56).

The Ādimoulīśvara is an I-1-a vimāna with an ardhamāṇḍapa connected directly with it. There is one niche in each wall of the porch. The temple lies in the centre of the old Muttaraiyar area.

Barrett dated it before A.D.925 which we find difficult to accept. Admittedly, the ground-plan is simple and the false antarāla is missing, but as we already pointed out in the case of the shrine at Tirukkaliṭṭattai (p. 139) the absence of this connecting element could also be due to scarcity of financial means. One of the inscriptions on the Ādimoulīśvara mentions that the village assembly commissioned the engraving on the walls of the new koyil of two old records of Parāntaka I which had been discovered on the steps of the previous building. This took place in A.D.977 after a donor had been giving financial

help to the temple since A.D.957. Apart from the two records of Parāntaka I dating from A.D.927 and 925, there are other inscriptions on its walls dating from A.D.959 and 961 which mention the names of donors and their gifts. If we assume that a renovation started around A.D.976, then it is incomprehensible why we are not told that the second group of records were also re-engraved. That is why we believe that the reconstruction must have taken place around A.D.960 and that some fifteen years later the old steps of the original shrine were discovered accidentally in a heap of rubbish or debris and found to be engraved with old inscriptions. Such a course of affairs could explain why the discovery was reported in such a special way.

It would seem that the village assembly took the fate of this shrine into their own hands and repaired the delapidated building without outside help and that they maintained the ground-plan of the original temple. The period during which the gifts were donated(A.D.957-961), indicates that the days of peace and prosperity under Uttama Coḷa had not yet commenced. One could almost imagine that, if the village assembly had acted less hastily, they could have rebuilt their temple under royal patronage with the pomp and circumstance so typical of the Śembyan Mahādevī monuments.

From Balasubrahmanyam's concluding remark it seems that he believed that the inscriptions were re-engraved on the original temple walls, for he wrote "This is a temple of the 9th century", although he stated elsewhere that "This suggests a renovation of the temple," thus showing that he continued to harbor unshaken belief in the authority of records ignoring the importance of stylistic arguments.

When we compare the small koyil at Tiruppaltuṟai with that at Tirukkaliṭṭattai(Pl. 54) which is equally simple, then, apart from the similarities in style, the contents of their inscriptions seem to confirm that in the gloomy years preceding the reign of Uttama Coḷa, the architects reverted to vimānas with a simple ground-plan and a small ardhamandapa without further embellishments in those cases in which postponement of repair was no longer justified.

### 32. *The Sundarēśvara at Nangavaram.*

Balasubrahmanyam and Barrett dated this II-2-b koyil ca. A.D. 917 on the basis of a record of the 10th regnal year of a Parakesari which refers to a splendid gift by a consort of Śembyan Irukkuveḷ. Moreover, Barrett believed that the architecture of this shrine supports this date. Since we have rejected his classification, as it could be proved to be inconsistent, we do not see how this argument can be substantiated.

The monument at Nangavaram lies in the periphery of the Sapta Sthāna group, but near Aṇḍanallūr and the fine II-2-b vimāna at Tiruchchendurai (no. 14, appendix 7). The latter was built either before or about A.D. 895 (p. 110). The oldest, securely dated inscription on the temple at Nangavaram was issued in A.D. 911. The building belongs to a group of monuments which, among others, were constructed under the patronage of an Irukkuveḷ chief and which includes that at Aṇḍanallūr (p. 110). One of their main characteristics is the absence of niches in the walls of their ardhamaṇḍapas. In other respects the architects engaged by the Irukkuveḷs seem to have copied the group of the Sapta Sthānas. The temple at Aṇḍanallūr has a II-4-b layout with a straight base as appears from the paṭṭikā only just sticking out of the pavement surrounding the shrine; that at Tiruchchendurai and Nangavaram both display the II-2 layout but differ in other respects: the former has a lotus adhiṣṭhāna and a square śikhara, the latter has a straight base and a round śikhara.

When discussing the diversity within the small Sapta Sthāna group, we already pointed out that variation within a small area is rather an indication of unity than of an independent development (p. 104). We therefore do not agree with Soundara Rajan's view that these three koyils were erected in the course of one century and according to two different styles,<sup>39)</sup> viz.

- the monument at Nangavaram in A.D. 845 by the Muttaraiyars;
- the monument at Tiruchchendurai in A.D. 910 by the Irukkuveḷs and
- the monument at Aṇḍanallūr in A.D. 935 built by the same people.

The koyil at Nangavaram is not a tritala, as he believed, but a dvitala, whereas the niches — not shown in his illustration — all belong to the fully developed type (cf. Fig. 29d, p. 98). The last applies to the other monuments as well. This is precisely why we believe that all koyils along the western Kāverī were constructed after the Sapta Sthānas since these buildings illustrate how the most satisfactory shape of the devakoṣṭha was finally discovered. Consequently, we consider the group of shrines west of the Sapta Sthānas also as a unit. The determination of their chronological sequence is neither relevant, nor possible because the temples from which certain elements were copied, were already in existence.

In order to support our view that temples were erected along the western Kāverī between A.D. 895 — ten years after the first II-2-b vimānas in the group of Sapta Sthānas were designed — and A.D. 910 (p. 110), we shall now discuss the shrines at Aḷlūr. They do not appear in Soundara Rajan's controversial publication, although they belong physically and geographically to this group of monuments along the western Kāverī. For a final discussion of these "Irukkuveḷ" monuments, we refer to chapter four (pp. 278-300).



22a-b. *The Pañcanādīśvara and the Paśupatīśvara at Alḷūr* (Pls. 57a-b).

Like the Sundareśvara at Nangavaram, the Pañcanadīśvara is a II-2-b vimāna. However, two different shapes are applied in its adhiṣṭhāna: a lotus base under the central niche of the garbhagrha and everywhere else an unusual adhiṣṭhāna similar to that of the Koranganātha at Śrīnivāsanallūr (Pl. 31). The Paśupatīśvara has the same type of vimāna, but its base is of the simple, straight kind. At present it is an ekatala which may be due to renovation. Neither of the buildings shows traces of niches in the walls of their ardhamandapas.

The oldest inscription on the Pañcanadīśvara which is securely dated, reports a gift in A.D. 913. The oldest record on the Paśupatīśvara dates from A.D. 924. The contents of both inscriptions, therefore, allow us to date both temples well before A.D. 910 instead of in A.D. 913 and 924. When discussing the vari we shall return to these two koyils, since the absence of this feature on their walls allows us to attribute them to the late 9th century (pp. 214-29).

24. *The Airāvateśvara at Nemam* (Pl. 59).

Barrett's rather vague opinion about this vimana is surprising. He dated it by way of precaution before A.D. 940, i.e. during the period in which he believed that the Gomukteśvara at Tiruvādūtūrai was built.<sup>40</sup> Balasubrahmanyam rightly trusted the genuineness of a Rājakesari inscription of A.D. 895 and, consequently, dated the shrine around this year.

The Airāvateśvara is a II-2-b vimāna without pañjaras and without niches in the walls of its ardhamandapa.<sup>41</sup> For the sake of completeness it must be added that the false antarāla is also lacking, although this was an established part of each and every temple ever since the Gomukteśvara at Tiruvādūtūrai was finished (no. 4, appendix 8). Barrett admitted that many aspects of the latter belong to his "first phase".<sup>42</sup> Consequently, we prefer to compare the shrine at Nemam with those at Tiruchchātturai (no. 4, appendix 7) and Tiruvēdikkudi (no. 3, appendix 7), although it is a simplified version of these two shrines. Its adhiṣṭhāna up to and including the two rows of panels under the pilasters resembles that of the koyil at Tiruvēdikkudi. Its ground-plan and ardhamandapa without niches can be compared with the same elements of the monument at Tiruchchātturai dated in A.D. 883, this all the more so, since its śikhara is square and not round, as Balasubrahmanyam believed (cf. Pl. 26). On the other hand it shares the rather unusual dvārapālas on the walls of the second tala with the koyil at Tiruvēdikkudi (cf. Pl. 25) and the Candraśekhara at Tiruchchēdurai.



Apart from its strong resemblance to some monuments of the Sapta Sthāna group, there are other indications that this shrine at Nemam should be dated between A.D. 884 and the year of its oldest inscription, viz. A.D. 895. The absence of a niche in the arhamaṇḍapa indicates that the architect had not yet decided the final composition of its walls, an aspect to be dealt with in the next paragraph. The vari on this building could indicate that the Airavateśvara was one of the first shrines in this region on which this element was tried out. The development of this thin, decorative band will be discussed in the next chapter (pp. 214-19).

25. *The Agnīśvara at Tirukkāṭṭuppalḷi* (Pls. 58a-b).

No inscriptions occur on this I-2-a koyil. In this respect it resembles the Muttaraiyar shrines. Another aspect also seems to indicate that we are dealing with an example of their style, for originally there were no devakoṣṭhas in the walls of this vimāna (p. 103). Pl. 58b clearly shows that a niche was cut out in a far too small space later on. On the other hand, the walls show an element completely unknown in the Muttaraiyar area: the vari or thin lotusband above the adhiṣṭhāna. However, the praṇāla is located in the kumuda, indicating the level of the floor inside the garbhagrha. So, it is conceivable that a new temple was erected on the remains of an old Muttaraiyar building of which only the jagatī was still intact.

The wide margins in the datings of both Balasubrahmanyam and Barrett obviously result from the fact that neither of them could produce any arguments. However, the original temple cannot have been built within the proposed periods (A.D. 870-900 and A.D. 870-940), for the fact that originally the vimāna had no niches, indicates that it was raised before Āditya I came to power, i.e. before A.D. 870.

26. *The Divyājñāneśvara at Kōvilāḍi* (Pl. 81).

This temple has again the I-1-a form which we met at Tirukkalitṭattai (p. 139) and Tiruppalturai (p. 140). According to an inscription the original, brick vimāna was renovated, presumably in A.D. 952 by a person who also rebuilt the Pīṭheśvara at Tiruveṟumbūr (p. 118)<sup>43</sup> In the record the word "vimāna" is used but without the aid of vastuśāstras the meaning of words indicating various parts of a temple is not always quite clear, as Balasubrahmanyam already showed in connection with the term kudap-padaī in an record on the Gomukteśvara

at Tiruvādūtūrai (p.126). Consequently, we believe that the word "vimāna" may have indicated only the roof, an interpretation which we already suggested in our discussion of the koyil at Tiruveṇṇambūr (p.120). This may also have been the case with the temple at Kōvilāḍi but, unfortunately, it can no longer be proved, since the present building is much younger than Balasubrahmanyam and Barrett assumed. It is a mere box on a kind of hotch-potch upāna, a temple element which at that time was still completely unknown in the delta. We are, therefore, not surprised that there are no pañjaras, since no chisel ever touched this shrine.

Of all I-1-a vimānas discussed so far this building is really the most glaring example of inability. Consequently, we are not prepared to consider it as an Early Coḷa monument. It is a late renovation on which inscriptions of the original shrine were re-engraved or in which stones with old records were re-employed, as we shall demonstrate later on.

#### 57. The Naltunai Īśvara at Puñjai (Pls. 60a-c and 79a).

After the monstrosity just dealt with, this monument is a relief, for it is sublime. It is the last example of the group with a I-1-a layout to be discussed. Its location in the northeastern delta is eccentric for here no other I-1-a vimānas are found, except for that at Tirumiyachchūr — an elephant's back — the renovated temple at Tirukkoḷḷikkāḍu and the Wanyaganātha at Tiruvārūr belonging to the same complex as the Acaleśvara, but built in the 11th century (Fig. 58, p. 303). Apart from the shape of their vimānas, these four buildings also share the fact that none of them can be firmly dated before the days of Rājarāja I on the basis of their inscriptions. The oldest reliable record on the temple at Puñjai dates from A.D.1007. True, an older inscription was found in the compound, but this is engraved on the Candēśvara parivāraḥ and mentions the 4th regnal year of a Parakesari, whom Barrett and Balasubrahmanyam assumed to be Āditya II (A.D.964-969). For both authors this record was the main reason to date the other shrine also before the 4th regnal year of this king, i.e. before A.D.968. Barrett went even further, for he believed that the Naltunai Īśvara at Puñjai is the precursor of the temple at Tiruvādūtūrai (no.4 appendix 8), because all its decorations are more beautiful than those at Tiruvādūtūrai, which to him means older. We agree that the decoration of the Naltunai Īśvara is very beautiful, but the śikhara is horrible, which does not prove this monument to be younger.

Barrett's second point was more objective, for he assumed that the number of niches in the ardhamāṇḍapa increased according to an arithmetical series one, two, three. Since the Naltunai Īśvara has only two niches in the southern

wall of its ardhamandapa and the Gomukteśvara at Tiruvādūtūrai according to Barrett three, the Naltunai Īśvara should be older. In our discussion of the Gomukteśvara (pp.123-26), we were able to prove that in this particular case Barrett was wrong. For, the northern ardhamandapa wall of the Gomukteśvara has only one niche with blind niches on either side and the southern wall has two niches and one blind niche, for the sake of symmetry. The northern wall of the Naltunai Īśvara also has only one niche; the southern wall on the other hand has two, distributed over the whole width in a well-balanced manner, a solution which made a blind niche superfluous.

We wonder whether it is not equally possible that this development went through a phase represented by a hall with two niches when the need for ardhamandapas with three niches was no longer felt due to the fact that mukhamandapas - which are much larger - began to be added to the vimānas. These large, square halls became popular during the reign of Rājarāja I. In the next paragraph we shall be able to prove that in the last decade of the 10th century the — then already too large — ardhamandapa with three niches became redundant, because the mukhamandapa offered far more space to the greater number of images and worshippers than an ardhamandapa could ever do. Consequently, it is quite possible that the temple at Puñjai — as its own inscription indicates — dates from the time of Rājarāja I. If so, it is an aberration in all other respects. However, it would also have been an anomaly if it had been constructed during the reign of Parāntaka I. So, our deviating point of view seems as legitimate as that of Baḷasubrahmanyam and Barrett.

If the Naltunai Īśvara should indeed be a precursor of the monument at Tiruvādūtūrai, then we cannot understand why the pañjara element which was current at that time was left out, although it would undoubtedly have pleased the gifted sculptors of this shrine. The monument at Puñjai gives rather the impression that its architect made a journey through the delta collecting ideas to be incorporated in his project. The temple's gigantic open kūḍus remind us of Tiruchchennampūṇḍi (Pl. 35a), the vyāli frieze of Tirukkaḷuvūr (Pl. 53) and the long antarāla of Lalgudi (Pl. 32), while the enormously heavy śikhara is similar to that at Tirumayānam (Pl. 43a). As noted previously (pp. 131, 134-35), the period after A.D.990 is characterized by a revival of old forms. In view of the architecture and the inscription from the 22nd regnal year of Rājarāja I, it seems quite reasonable to date the temple at Puñjai between A.D.990 and 1007.

If indeed there was a tendency to reduce the number of niches in the ardhamandapa walls to one, then the presence of that remarkable second niche

with the Agastya image poses a problem. Yet, we can well imagine why the popular figure of Agastya was not removed from the outside of the ardhamandapa wall. This pot-bellied, friendly saint who, in character and appearance is so similar to his neighbour Gaṇeśa, had become an accepted feature in the southern ardhamandapa wall since the construction of the shrine at Tiruvādūtūrai.<sup>44)</sup> From that time onwards he occupies a fixed place in the iconographical layout, although Śiva's other manifestations are occasionally missing and in any case do not yet have fixed places. When the stone ardhamandapa sculptures started to be replaced by expensive bronze images and were stored in the mukhamandapa the worshippers showed a touching attachment to the beloved old saint by letting him retain his place of honour on the outside wall — at least this is how we, some thousand years later, should like to interpret the course of events.

The fact that the sthāpati of the Naltunai Tśvara at Puñjai was somehow able to incorporate the anomaly of two niches in the total concept of the southern ardhamandapa wall in a more harmonious way than the builder of the Gomukteśvara at Tiruvādūtūrai — where the asymmetric arrangement does not seem to be a particularly good idea — also pleads for a construction of the Naltunai Tśvara after that of the Gomukteśvara.

#### 28. *The Anāntheśvarasvāmin at Uḍaiyārgudi* (Pls. 61a-b).

At present this building has a I-2-b vimāna. The temple lies outside the delta, but from a hydrographical point of view it still belongs to it. For Uḍaiyārgudi lies near the enormous Viranyam tank which draws its waters from the Coleroon. As such, the village lands are part of the delta economy.

The village was founded by Parāntaka I (A.D. 907-955) who constructed the tank. Presumably, the shrine was also commissioned by him, for one of its names is his. On the other hand, it could have been called after him some time after his death. Balasubrahmanyam advocated the first opinion, while Barrett opted for the second. Balasubrahmanyam considered a record from the 33rd regnal year of a Parakesari to be genuine and contemporary with the building, implying that the shrine existed already in A.D. 940, for such a high regnal year can only be associated with Parāntaka I. Barrett, however, tried to prove at great length that the ardhamandapa originally must have had six niches, an indication that the construction took place shortly before A.D. 970, when the first koyils of this type were built in the delta (cf. Fig. 25, p. 92). Unfortunately, the present hall has only one niche in each wall, so we cannot agree with Barrett's reasoning, since even cut-out niches are absent, which makes it impossible to classify this monument as a II.b.1 type, according to his typology.<sup>45)</sup> His only

argument is the information that in the 2nd regnal year of Āditya II a gift was made to this temple in order to set up shrines( the inscription uses the word koyil) for Naṭarāja, Gaṇeśa and Bhikṣāṭana. Barrett interpreted the word "koyil" here as "devakoṣṭha". Since neither the devakoṣṭhas nor the actual shrines have survived it is impossible to decide which interpretation is correct. However, as the walls do not show any cutting or elaborated carving we can safely assume that the record referred to small shrines of the parivādevatā class.

Having eliminated the attribution of the temple to a date around A.D.960-70, we now have to consider the possibility that the shrine in question was built in the reign of Parāntaka I as Balasubrahmanyam advocated. This means that it can be compared with the I-2-a koyils in the delta (appendix 8) or with the II-2-b vimānas in South Arcot (Fig. 27, p.96 ). In both cases the (I)-2-b form of the building is an anomaly, so we have to reconsider this statement. However we are not sure whether the present number of talas are part of the original shrine, since the grīvā-niche is unique in that it is covered by a kapota. This feature was first introduced in the days of Rājendra I as new element over the devakoṣṭhas in the walls of an ardhamandapa (cf. the Amman or Pārvatī shrine at Gaṅgaikōṇḍacolapuram, Pl. 19b). In view of the fact that Uḍaiyārgudi has to be considered as part of the delta and that, consequently, its temple belongs to the delta idiom, it seems likely that the original koyil was built according to strict, proportionate lines — a characteristic of all delta temples — implying that it must have been a II-2-b vimāna, on account of its six pilasters in each wall. This type was common in the days that Parāntaka I had his headquarters in South Arcot and examples of it can be found at Grāmam and Kīlīyanūr. However, these shrines do not have the false antarāla which we find in the Anāntheśvarasvāminat Uḍaiyārgudi and all other delta temples of that period. It rather looks as if the hybrid, geographical location of this monument both in the delta and in South Arcot is reflected in its construction: the vimāna belongs to the category of koyils built in South Arcot in the middle of the 10th century, its ardhamandapa to the idiom prevailing in the delta at that time. In this way the absence of pañjaras in the walls of this vimāna can be explained — an absence which was responsible for the discussion of all temples listed in appendix 9.

29. *The Ujjīvanātha at Uyyakkōṇḍān Tirumalai.*

This (II)-1-a temple lies on the border of the area with II-2-b and I-1-a vimānas (map 5). According to Balasubrahmanyam a number of early records were



found on the pillars around the central shrine, the oldest dating from A.D. 917. Inscriptions on pillars do not inspire confidence. The place of the other records, viz. those of Uttama Coḷa and Rājarāja I, is not mentioned but they are probably engraved on the central shrine. We may, therefore, assume that an old temple was renovated either before A.D. 979, the date of an "incomplete" record, or before A.D. 955, the year in which Śembyan Mahādevī offered a costly jewelled crown to the deity. From the presence of a detached image of Ardhanaṛī Balasubrahmanyam concluded that the temple dates from the time of Rājya I, for this manifestation of Śiva was popular during the reign of this ruler. The illustration of the figure in question shows a crude sculpture which could never have been the original.<sup>46)</sup> That is why we believe that the shrine was rebuilt in the days of Śembyan Mahādevī, because her inscription occurs on the new parts of this koyil and not on the pillars. Since the original layout — including the position of the niches — was maintained these renovated parts lie above the paṭṭikā. This course of events seems likely, because the records of Parāntaka I which were undoubtedly first engraved on the walls over the paṭṭikā, are now re-engraved on the pillars. Otherwise, they would still have been in their old place, i.e. the base under the paṭṭikā.

So, there are two explanations for the absence of pañjaras on this temple. Firstly, the renovation did not take place in the pañjara phase and secondly, the old base was retained the size of which did not allow for extra embellishments such as pañjaras.

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We are now able to draw a final conclusion from our detailed discussion of the monuments dealt with in the last two paragraphs. For, we can now divide the pañjara phase, which we assumed in our hypothesis (p. 116) to run for about 70 years, i.e. from A.D. 900-970, into: 1. a first phase lasting for less than half a century, i.e. from ca. A.D. 900 (Tiruveṇṇambūr, Puḷḷamaṅgai) till A.D. 940 (Kōyildēvarāyanpēṭṭai), characterized by a reverse development of the functional aspects of the pañjara; 2. a second phase from A.D. 990 onwards in which any form of the pañjaras was considered acceptable but not required.

With regard to the shrines without pañjaras built in the pañjara region or during the pañjara phase we saw that between A.D. 940-70 some tiny I-1-a vimānas were built and financed by villagers (appendix 9, nos. 19 and 21), while between A.D. 970-990 two groups of koyils could be distinguished, viz. (I-2-a) shrines commissioned under royal patronage and those which were raised at the instigation of well-to-do citizens (appendix 9, no. 20, note 4). The main differences between the last two groups



of monuments is the number of niches in the walls of their ardhamandapas. In the next paragraph we shall deal with this subject, since we assumed an inverse relationship between the disappearance of pañjaras and the appearance of more niches in the walls of ardhamandapas (p. 116).

#### 4. Distribution of the ardhamandapa variants

##### 4.1. Introduction and typology.

From the preceding paragraphs it has become clear that an ardhamandapa is a part of the temple which is characterized by the number of niches in its walls and the way it is attached to the vimāna.

At first, an ardhamandapa was not more than a small porch, considerably narrower than the vimāna itself (Fig. 33a). There was just enough room for a priest and an occasional worshipper. Images could not possibly be placed inside. The walls of these early ardhamandapas were too short to include niches on the outside and so the images were usually accommodated in the courtyard around the main building in far smaller shrines along the prakāra walls, as can be seen, for instance, in the Kailāsanātha at Kāñcī, or in the aṣṭapari-vāradevatā chapels in the Muttaraiyar area.

When niches started to appear in Early Coḷa architecture on the outer walls of the ardhamandapas the architects had to design walls which had to be slightly longer (Fig. 33b). However, even such an enlarged ardhamandapa was still too narrow to accommodate in a convenient way the Śaiva worshippers and the growing number of images. This was only possible by widening the porch which created the problem that the transition between the vimāna and its ardhamandapa could no longer be distinguished on the outside as indicated in Fig. 33c. To mark the point where the domain of the enshrined god runs over into the domain of his worshippers, the thickness of the wall was, therefore(?), slightly reduced (Fig. 33d). Barrett called this small recess a "false" antarāla, because the recess introduced by the Coḷas suggests the presence of an antarāla or corridor. In due course even the enlarged ardhamandapa proved to be too small for the ever increasing socio-religious functions which had to be performed inside the temple. Thus, a more spacious building was required. A large, covered and walled mukhamandapa now became the third structural part of the temple building (Fig. 33e). As a result the wall-surface in which sculptures could be placed increased considerably. At the same time the need for a wide ardhamandapa decreased. There does not seem to exist a relation between the size of a vimāna and the length of its ardhamandapa.<sup>47)</sup>

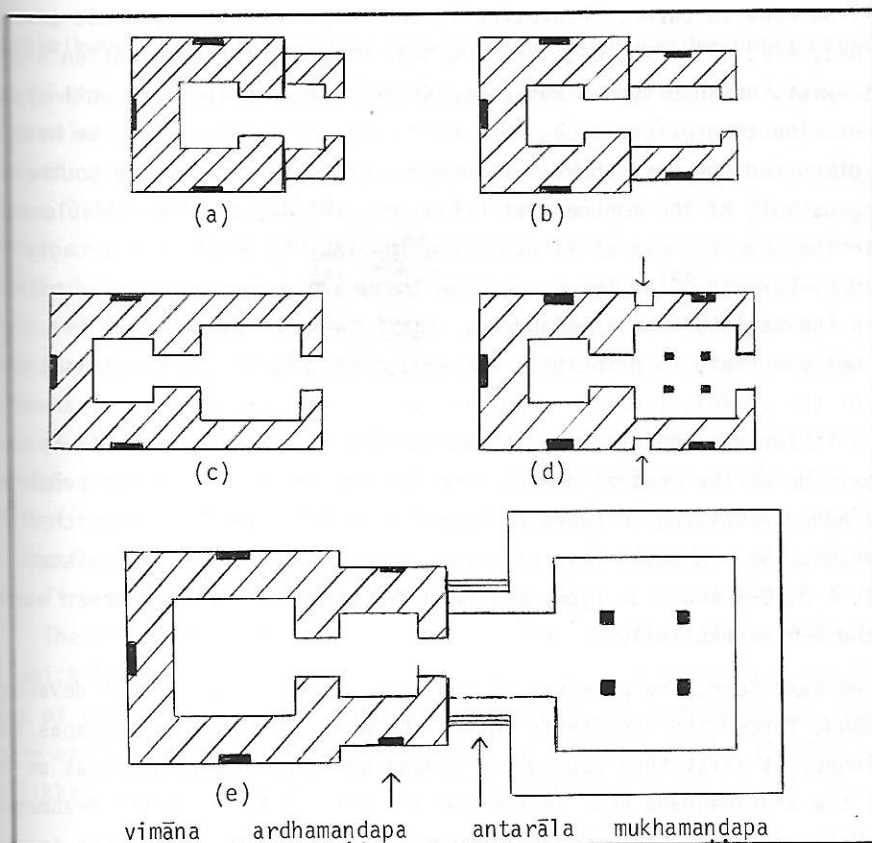


Fig. 33. Development of the ardhamandapa in Early Coḷa architecture.

- (a) a porch connected directly with the vimāna and without niches.
- (b) same, with one niche in each wall of the ardhamandapa.
- (c) an enlarged porch as wide as the vimāna and with one niche in each wall.
- (d) an enlarged porch as wide as the vimāna and one (or three) niche(s) in each wall; the transition between the vimāna and ardhamandapa is indicated by means of a receding "false" antarāla; roof supported by pillars.
- (e) a porch connected directly with the vimāna; a mukhamandapa is attached by means of an antarāla or steps.

The size of the vimānas varies between 4 and 6 m<sup>2</sup>.

We can distinguish two main types: 1. the old form indicated as type A, i.e. an ardhamandapa which is less wide than the vimāna and attached directly to it (Figs. 33a-b, e) and 2. type B with a porch as wide as the vimāna and a false antarāla (Figs. 33c-d) but c is merely a hypothetical form. In general type B is younger than type A, except when type A occurs in combination with a mukhamandapa (Fig. 33e), which is contemporary with the whole building. These two main types can be subdivided on grounds of the number of niches

varying from none to three. Theoretically the complete typology could consist of A-0, A-1, A-2, A-3, B-0, B-1, B-2 and B-3. However, the combination B-0 does not exist, because type B was especially created to increase wall-space for niches. The theoretical types A-2 and B-2 do not exist either. We have already discussed the very unusual phenomenon of two niches on the southern ardhamandapa wall of the monument at Puñjai (pp. 145-47) and the problematic niches in the Gomukteśvara at Tiruvādūtūrai (pp. 125-26) which were wrongly interpreted by Barrett.<sup>48</sup> As far as we know there are no other examples with two niches in the walls of an ardhamandapa.

We believe that, in principle, the wall treatment of the porch is the same as that of the vimāna, i.e. the emphasis lies on the central part of a wall by reserving it for a niche. In case it was decided to use also the wall-space on either side of the central niche, then two lateral niches or two pañjaras could be added resulting in types A-3 and B-3 or A-1<sup>P</sup> and B-1<sup>P</sup> in which P means pañjara. So, in total five different types of ardhamandapas existed: A-0, A-1, A-3, B-1 and B-3. Types A-1<sup>P</sup> and B-1<sup>P</sup> then can be considered variants of A-1 and B-1 respectively.

As we have seen, the presence of pañjaras flanking the central devakoṣṭha of a vimāna, forced the architects to use the walls of the ardhamandapas for extra niches. At first they copied the vimāna walls by adding pañjaras on the walls of the ardhamandapa next to the one and only niche as on the Brahmapurīśvara at Puḷḷamaṅgai (p. 124). Gradually, when the need for more niches increased the pañjaras disappeared from both the vimāna and the ardhamandapa, to be replaced by extra niches in the walls of the ardhamandapa only. Since by that time type B had become popular, B-3 ardhamandapas were the result. The moment the mukhamandapas were introduced type B disappeared. It is likely though, that the custom to design ardhamandapas with three niches lingered on in spite of the changed ground-plan. Type A-3 must, therefore, be considered the successor of type B-3. Since we saw the revival of non-functional pañjaras on the walls of the vimāna at Kuttālam from ca. A.D. 992 (p. 131) we should not be surprised to find pañjara-decorated ardhamandapas as well.

In the following paragraphs we shall describe the distribution of the five ardhamandapa types just mentioned, in their supposed chronological sequence A-0, A-1, B-1, B-3 and A-3, including the ardhamandapas with pañjaras on either side of their devakoṣṭhas which so far were not yet dealt with in the paragraph concerning the pañjaras on the walls of vimānas (pp. 118-37).

#### 4.2 Distribution of the ardhamāṇḍapa variants; determination and description of uniform regions.

The Kāverī region can be divided into two parts (map 6): the A-area west of Tiruppalanam(Tp) and the B-area to its east. Except for the northern bank of the undivided Kāverī, the entire region west of the Sapta Sthānas is a A-0 area. Differentiation within this large region is only due to the varying number of niches in the vimāna walls. In the Muttaraiyar tract no niches were designed. We can, therefore, describe it as a 0-A-0 area. In the so-called Irukkuvel and Paḷḷuvettaraiyar tracts one niche in each vimāna wall was customary (1-A-0). North of the undivided Kāverī the 1-A-1 combination can be observed.

As we already saw with regard to other aspects, the Sapta Sthānas again display a great variety. In combination with the number of niches in the walls of their vimānas we can classify them as follows(cf. appendix 7, column 3): Tiruppalanam: 3-A-3, Tillaisthānam: 3-A-0, Tiruvēdikkudi: 3-A-1, Tiruchchātturai, Tiruvaḷḷiyāṇṭu and Melatirupṇḍurutti: 1-A-0 and Tirukkaṇḍiyūr 1-A-1.

The B-3 ardhamāṇḍapas are located in the centre of the delta between areas in which B-1 halls were designed. The impression is created that the southern part of the delta is once more characterized by A-1 ardhamāṇḍapas, but these are — except for two renovated shrines at Tirumayānam(pp. 128-29) and Tirukkoḷlikkaḍu — later than the Early Coḷa period.

South Arcot presents a concentrical picture: an A-0 core with an A-1 shell, surrounded by B-1 ardhamāṇḍapas. Here, all temples have only one niche in the walls of their vimānas.

In the Palar region only A-1 ardhamāṇḍapas occur, except at Parameśvara-māṅalam(P) and Tennēri(T) which have B-1 and A-3 halls respectively. The Pālava monuments belong to type A-0, although in some cases there are sculptures in the walls or a pair of pilasters has been added which creates the impression of a (blind) niche.

Comparing these three large river areas, the following statements can be made:

1. the stylistic development characteristic of the Coḷas seems to occur in the delta only and shows a strong trend from west to east;
2. the areas of the Muttaraiyars, Irukkuvels and Paḷḷuvettaraiyars appear to have been an insurmountable barrier for certain Coḷa innovations;
3. the stylistic development in South Arcot spreads out from an old core as was the case in the delta;

4. the Palar region, obviously, lay outside the sphere of Coḷa influence during the period in which in the delta the form of the ardhamaṇḍapa changed considerably ever since the first A-1 hall was built.

Anomalies in the distribution-patterns can only be observed in the large Kāverī area and its surroundings. They are listed in Table B. It is remarkable that the controversial monuments at Śrīnivāsanallūr and Kumbakonam reappear. The Sapta Sthānas are an explosion of different shapes in an otherwise uniform region.

Table B.

Anomalies in the distribution-pattern on map 6.

District	Name of the village	layout	locational context
Kāverī area (incl. the Taṇjavūr and Tiruchirap- palli Districts.	Śrīnivāsanallūr	3-A-0/1-?-1 <sup>1)</sup>	1-A-1
	Tiruchchennampūṇḍi	3-A-1	
	Tiruppalanam	3-A-3	
	Tillaisthānam	3-A-0	
	Tiruvēdikkudi	3-A-1	
	Tiruchchātturai	1-A-0	
	Tiruvaiyārū	1-A-0	
	Tirukkāṇḍiūr	1-A-1	
	Melatiruppūndurutti	1-A-0	
	Lalgudi	1-A-0/1-?-0 <sup>1)</sup>	
Tiruchirap- palli	Karandai	1-B-1	1-A-0
	Vēḍāraṇyam	0-A-0	
	Kumbakonam	3-A-1	
South Arcot	Chittūr	1-A-1	1-A-0
	Nārttāmalai (Melakkadambūr)	1-B-1	
North Arcot	Brahmadēśam (Patalīśvara)	1-B-3	1-B-1/1-A-1
Chingleput	Tennēri	1-A-3	1-A-1
	Paramēśvaramaṅalam	1-B-1	

1) see our discussion on the hybrid character of this building on p. 107.

□ Sapta Sthānas.

#### 4.3. Chronology of the uniform regions.

In Fig. 34 we have combined a number of data discussed in the previous paragraphs in a diagram in order to show how much the contribution of the Coḷa to South Indian architecture varies from district to district. Reading the diagram from left to right we see that the uniform picture on map 6 of the







A.D. 1006 (at Dadapuram). According to Balasubrahmanyam the only two exceptions are the B-1 shrine at Tiruvāṇḍārkkōyil (appendix 13, no.8) which he attributed to ca. 922 and that at Brahmadeśam, a 1-B-3 monument from between A.D.1015 and 1044 (appendix 13, no.19)..

Some Parakesari inscriptions on the walls of the shrine at Tiruvāṇḍārkkōyil possibly dating from the time of Parāntaka I, have indeed been found.<sup>51)</sup> But the fact that a record of the year A.D.990 mentions that a gift of land was made in the 14th regnal year of Parāntaka I (i.e. A.D. 922) could indicate that the temple was renovated or even reconstructed in the last decade of the 10th century and that the old inscription recording the royal gift of A.D.922 was at that time re-engraved. For the time being we should like to date this monument between A.D.960 and 990.

The 1-B-3 shrine at Brahmadesam was built later. Its earliest inscription dates from the 24th regnal year of Rājendra I (A.D. 1036). So, Balasubrahmanyam assumed that it was built after A.D. 1015. Since there are very few records on temples of either Rājarāja I or of his son, the absence of inscriptions on the monument in question mentioning these rulers does not exclude the possibility that it was erected in the reign of Rājarāja I.<sup>52)</sup>

In South Arcot the period between A.D.910 and 960 remains obscure (Fig. 22, p. 96). The shrine at Kiḷiyanūr belongs to the 1-A-Ø type (appendix 13, no. 34), that at Grāmam has a niche in the walls of its ardhamāṇḍapa, but in the vimāna we have observed cut-out niches, making it an example of a Ø-A-1 temple (appendix 13, no.4). This implies that we are not in a position to judge when the first 1-A-1 monument was built in this district. We shall return to this problem in the next chapter.

Leaving the delta temples till the end, we now turn to the monuments in the Tiruchirappalli District. As already observed, it is basically an A-Ø area (map 6). In view of the renovation from the adhiṣṭhāna upwards of the Piṭṭasvara at Tiruveṇṇambūr (pp. 119-20) and of the shrine at Uyyakkōṇḍān Tirumalai (p. 149), we may assume that around A.D.950 it became customary even in this region to add niches in the ardhamāṇḍapa walls. The Agnīśvara at Chittūr (on map 6, (appendix 14, no. 11) apparently belongs to the 1-A-1 category. But originally, it must have been a 1-A-Ø building. The pilasters and corbels of the vimāna are different from those of the ardhamāṇḍapa, indicating that the two are not contemporary. Furthermore, the shrine has the regional, anomalous II-2-b layout (map 5), a feature which it has in common with the Mucukundasvara at Koḍumbāḷūr from A.D.920 (appendix 14, no. 9).<sup>53)</sup> The only seemingly

1-B-1 monument is the Melakkadambūr at Nārttāmalai. Balasubrahmanyam attributed this shrine to ca. A.D.1007,<sup>54</sup> but this date is contradicted by the shape of the makaratoraṇa, the podigai and the kapota (appendix 6). It should be considered as a building of at least the Middle Coḷa period.

With this shrine eliminated, the Early Coḷa phase is represented in this district by a few original 1-A-1 monuments all located north of the Kāverī. An attempt to date the characteristic 1-A-0 koyils has to wait till we know more about other features which will be discussed in the next chapter.

The situation in the delta is more complicated than in the outlying provinces, as can be expected of a cultural melting-pot. In two periods a multitude of new or varying forms can be noticed: during the time the Sapta Sthānas were designed and, a century later, during the reign of Rājaraṇja I. In between, a regular and steady development seems to have occurred from the 1-A-1 monuments via the 1-B-1 to the 1-B-3 shrines. The years A.D.885, 910, 970 and 1000, represented by lines drawn in Fig. 34, (p.155), indicate the year of transition from type 1-A-1 to 1-B-1, from 1-B-1 to 1-B-3 and from 1-B-3 to the period in which all forms were allowed. The monuments supposed to have been completed between A.D.910-70 were discussed in the previous paragraphs, dealing with the pañjara vimānas and with temples built during the pañjara phase. The majority belongs to the 1-B-1 category, while some minor shrines represent the 1-A-1 type. In the next paragraph we shall discuss the koyils which were built either before A.D. 910 or after A.D.970.

*Chronology of the temples within the uniform regions of the delta.*  
In appendix 7 the characteristics of the complete temple layout of the Sapta Sthānas are given (nos. 1-7). It is remarkable that each of the three most complex vimānas in this group (nos. 1-3) represents one of the three theoretical types which we established for the ardhamandapa and its connection with the vimāna. This confirms our opinion that the extraordinary variation within such a small area and within such a limited group indicates the first phase in a stylistic development (pp. 94, 103). Since the other four shrines (nos. 4-7) have either one niche in each wall of their ardhamandapas or show a bare wall, we can conclude that the builders of the Sapta Sthānas dropped the idea of applying three niches in each wall of the vimāna, but could not yet make up their mind whether to select an A-0 or an A-1 layout. Since both types were adopted in the shrines in the surrounding area (nos. 8-14) we cannot use it as a criterion to refine the proposed chronology of these monuments.

The layouts of the monuments at Śrīnivāsanallūr (no. 10) and Lalgudi (no. 11) could be interpreted as further experiments with new forms. In both cases the ardhamandapa could be called a mukhamandapa, since the recess connecting the vimāna to its porch is the wall of a real corridor. As such they are an illustration of the thesis that in the last quarter of the 9th century there was no single type and that all possible combinations were tried out. We may, however, point out that the first and last monument of those built according to our criteria in this period, show the same experimenting. It concerns the ardhamandapas of the koyils at Tiruppalanam and Puḷḷamaṅgai.<sup>55</sup> Both buildings have an extension near their entrance (p. 124). It seems as if the sthāpatis wanted to try out which solution was the most satisfactory: either extra room in front of the vimāna (Śrīnivāsanallūr and Lalgudi) or in front of the ardhamandapa (Tiruppalanam and Puḷḷamaṅgai), a question which seems to have been settled in favour of the former solution and resulted in the first rudimentary B- scheme which was adopted in a more perfect form in the shrines at Tiruppurambyam and Tiruvādūtūrai (appendix 10, nos. 1-2).

In appendix 10 all temples in the delta belonging to the 1-B-1 category are listed. The most common combination is that with a I-2-a vimāna layout. This conception seems to have been applied throughout the greater part of the 10th century, i.e. between A.D. 925-985. However, this assumption is only correct, if the II-3-b vimāna at Tiruppurambyam (no. 1) was built either before A.D. 925 or the I-1-a monument at Puṇṇjai (no. 10) after A.D. 985. The inscriptional evidence concerning these two shrines does not contradict our point of view (pp. 122-23, 145-47). The interest shown by well-to-do villagers coinciding more or less with Śembyan Mahādevī's activities around A.D. 970, is confirmed by yet another koyil, viz. that at Tiruviḷakkuḍi (p. 125, appendix 10, no. 5). At present it is a dvitala, but in view of its steepness, the modern brick roof is obviously a replacement of a stone ekatala śikhara. The niches in the walls of the ardhamandapa are — except for the central one — cut out. So, the original design must have been I-2-a/1-B-1. One quarter of the expenses were financed by the merchant guilds of the village. The rest was paid from small, private contributions throughout the reign of Sundara Coḷa (A.D. 956-973).

All six monuments belonging to the I-2-a/1-B-1 group, including that at Tiruviḷakkuḍi, are dated between A.D. 925-985, whatever their exact dates may be (appendix 10, nos. 2, 3, 5-7, 9). It seems unlikely that such a preference for one type would be overruled in favour of an entirely different kind of koyil. Therefore, we still insist on our datings of the monuments at Tiruppurambyam and Puṇṇjai, all the more so as the latter can be dated even more accurately.

will be shown in the following discussion.

Appendix 11 gives, among others, the location of all temples with a 1-B-3 (part. 56) Balasubrahmanyam and Barrett agreed that they were built in or after A.D. 969 and before A.D. 986 (except no. 5). These shrines resemble each other to such an extent that they are usually considered to form a group. However, they differ in the number of talas and in their ground-plans. We consider it odd, that such basic differences in the structural framework can occur within a single group of temples without having some consequences as to their internal terminology. Now, one of our hypotheses was (pp. 16, 18) that the height of a building usually bespeaks the skill of the architects and/or the financial means of the donor. Translating this hypothesis into a real situation we assume that the period between A.D. 969-985 can be subdivided into at least two phases, into a first period in which exclusively ekatalas were built and a second with the complex dvitalas. Inscriptional evidence to support this point of view does not exist for the contents of the records on the walls of the dvitalas is inconclusive, as we shall see. The information on ekatalas is flexible in that we can only infer that the temples existed already in the year mentioned in their records. In the absence of inscriptional evidence, the structure of a shrine should, therefore, in all cases be taken as guide-line.

*11.1.1. Temples built during the reign of Uttama Coḷa: A.D. 969-985.*

The first group consists of eight ekatalas (nos. 1-8 in Fig. 35 and appendix 11), the second group of six dvitalas (nos. 9-14 in Fig. 35 and appendix 11), those at Kuhūr and Ānangūr having only one niche in each vimāna wall, while the shrines at Tiruviḍaimarudūr and Śembyan Mahādevī have three deva-niches in their vimāna walls. The monuments at Tirukkodikkaval and Vriḍdhāchalam should be considered transitional: they have the simple vimāna layout in common with the first group, their number of talas with the second. Although the present building at Tirukkodikkaval has only one tala, we believe that it originally was a dvitala. The new śikhara is made of brick and — what is particularly strange — has karṇakuṭṭas on the four corners of the grīvā-platform, as if the later architect wanted to maintain something of its previous dvitala character. Geographically Vriḍdhāchalam does not belong to the delta, but from the records on its Śiva koyil it appears that the temple was built under the patronage of Śembyan Mahādevī and it can, therefore, be considered a product of her workshop.

What evidence do we have to prove that the dvitalas in the delta are younger than the ekatalas and that the oldest of all is the monument at Kōṇēri-  
vijapuram of ca. A.D. 969? Among the inscriptions on ekatalas there is one



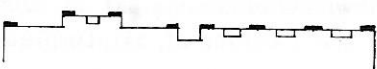
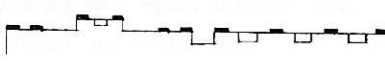

A.D. 969		1. Kōnērīrājapuram 2. Kīṭṭanūr 3. Tirunāgēsvaram 4. Aḍuturai 5. Tiruvalaṅguḷi (Kṣ) 6. Tirunaṇṇaiyūr 7. Tiruppugalūr 8. Tiruvirāmeśvaram	ekatala
A.D. 980		9. Tirukkodikkaval 10. Vriddhāchalam (Pateśvaram) 11. Kuhūr 12. Ānangūr 13. Tiruviḍaimarudūr 14. Śembyan Mahādevī (Tiruchcheṅgāṭṭaṅguḷi)	dvitala
A.D. 985		15. Tiruvārūr (Ac.)	tritatala
<hr/>			
	II-4-b/1-B-3 + blind niches II-2-b/3-A-3 II-2-b/1-B-3 + kumbhapañjaras in false antarāla II-2-b/1-B-3 + pañjaras (Ib) on vimāna II-4-b/1-B-3 + kumbhapañjaras on vimāna II-4-b/1-B-3 + pañjaras on vimāna and false antarāla II-3-b/1-B-1 + blind niches and pañja- ras on vimāna and ardha- maṇḍapa	16. Tiruchcheṅgāṭṭaṅguḷi 17. Nāgaṭṭinam 18. Pateśvaram 19. Kuttālam 20. Tiruvalaṅguḷi (Kap.) 21. Manampādi 22. Tirukkaḍaiyūr	
A.D. 1000-1044	II-4-b/1-A-3 + pañjaras on vimāna II-2-b/1-B-1 + blind niches in false antarāla and ardhamāṇ- ḍapa I-1-a/1-B-1 + extra niche in southern ardhamāṇḍapa wall I-E-a/1-B-3 I-2-a/1-A-0 I-2-a/1-A-1 I-1-a/0-A-0 I-1-a/1-B-3 + kumbhapañjaras I-2-a/1-B-3 + kumbhapañjaras II-4-b/1-B-1 + kumbhapañjaras II-4-b/3-B-3 + kumbhapañjaras II-2-b/1-A-3 + blind niches vimāna I-1-a/1-A-0 ?-5-c/1-A-1 I-2-a/1-A-1 II-3-b/1-A-1 + pañjaras II-4-b/1-A-1 + pañjaras I-2-a/1-A-1 + pañjaras	23. Tiruvaiyārū (TK) 24. Tiruvaiyārū (UK) 25. Puñjai 26. Tirumiyachchūr 27. Tiruveṅkādū 28. Tirukkoḷḷikkāḍu 29. Vēḍāraṇyam 30. Rāmanātha Kōyil 31. Mahārājapuram 32. Coḷapuram 33. Gaṅgaikoṇḍaḷapuram (Am.) 34. Tirumalavādi 35. Tiruvārūr (Wan.) 36. Tiruvārūr (Tya.) 37. Melappaḷuvūr 38. Tirumaṅgalam 39. Goburapatti 40. Tudaiyūr	

Fig. 35 Main characteristics of monuments built in the delta between ca. A.D. 969-1000 and between ca. A.D. 1000-1044.

at Śembyan Mahādevīrājapuram from which some information can be deduced. Dated in A.D. 972 it mentions that the king was "informed" that Śembyan Mahādevī built this temple. It includes a reference to a donation — in order to maintain a flower-garden — in the 3rd regnal year of her son Uttama Coḷa, i.e. the year A.D.972. From this record we learn two things. In the first place, that it was not usual to engrave the information concerning important gifts only years later on the wall of a shrine and secondly, that the addition "who built this temple" is comparable to the more common information about gifts such as "gold in order to burn a lamp" and seems to have been considered equally important. These inscriptions were often recorded much later and were not intended to inform posterity about the exact year of construction of the shrine. Since the engraving of inscriptions had to be carried out by a qualified mason, the villagers would have had to wait for the arrival of such a person, which explains the lapse of time between the actual year of the gift and that of the record. We, therefore, agree with Barrett who suggested that the building in question was probably completed between A.D.969-972. We are convinced that Śembyan Mahādevī, apparently on her own initiative, began to renovate temples which were in a dilapidated condition — though at first in a modest way.

The dvitala at Kuhūr would seem to contradict this statement (no. 11). Barrett considered an inscription dating from A.D.970 as the oldest on this shrine. There are, however, other records of the days of Rājarāja I referring to donations made in the regnal years 7, 8 and 9 of a Parakesari. Nobody knows which king is meant with by this epithet. So, the only conclusion can be that this koyil was renovated and that the old inscriptions were re-engraved on the new building, eventually including that of the 2nd year of Uttama Coḷa (A.D. 972). However, even if we were to eliminate the shrine at Kuhūr on apparently good grounds, then another dvitala seems to invalidate our statement, viz. the huge and complex II-4-b koyil at Tiruviḍaimarudūr (no.13). Although the present building was recently renovated, we know that the original temple carried a record dated in the 4th regnal year of a Parakesari which is generally attributed to Uttama Coḷa. Its contents are curious, for it reports the opening of some cellars in which the inscribed stones of an older shrine were stored in order to re-engrave them on the new walls. The epithet Parakesari is supposed to refer to Uttama Coḷa and, consequently, the temple is attributed to the year A.D.973. However, this should not be accepted unquestioned, for Rājendra I carried the same epithet. Apart from the fact that many records issued in the name of a Parakesari have been attributed to Uttama Coḷa without further arguments,



we are confronted with the unusual phenomenon that there are hardly records from the days of Rājendra I, embracing a period of almost half a century. We believe that many of the unidentified Parakesari records are wrongly attributed to Uttama Coḷa or even Parāntaka I and that in the case of the record at Tiruviḍaimarudūr we are dealing with such an inscription of the day of Rājendra I. We base our belief on the fact that the new temple, referred to in the record of the year 4, was a replacement of a brick structure. The inscribed stones could, therefore, never have been part of the walls of the original shrine. At best, they were blocks with which the old base was constructed. They were probably stored already for some time. This implies that the copying was not necessarily started immediately after the completion of the new koyil. In fact, one can well imagine that the heavy, old stones had meanwhile been forgotten. The decision to bring them back to light could have been caused by the wish to use the cellars for storing valuables. It is known, for example, that especially Rājarāja I and his family donated many pieces of jewellery to the deities which were brought out during processions. An underground cellar would, therefore, be more suitable for the storage of such priceless treasures which were only occasionally displayed, than for granite slabs bearing inscriptions.

Knowing that these extravagant gifts are typical of the days of Rājarāja — and probably also of those of later rulers, although inscriptions of identified kings are absent to prove this assumption — the epithet Parakesari may then well refer to Rājendra I, the first Parakesari after Rājarāja I, a Rājakesari. Consequently, the 4th regnal year should be interpreted as A.D. 1018, thus eliminating the possibility that the shrine in question was constructed in A.D. 973. In view of the absence of other inscriptional evidence we are inclined to date the original koyil at Tiruviḍaimarudūr ca. A.D. 980-85, viz. after the last ekatala of the first group was completed.

On the walls of the dvitala at Ānangūr (no. 12) is an undated record mentioning Śembyan Mahādevī as the builder of this koyil. A second inscription records a gift in the 10th regnal year of a Parakesari who, according to Barrett, is almost certainly Uttama Coḷa though this cannot be inferred from the contents of this inscription.

Finally, the year A.D. 981, is the date at which the Kailāsanātha at Śembyan Mahādevī is supposed to have been completed (no. 14). Here again, records explicitly mentioning this memorable fact, are wanting. The first reliable information dates from A.D. 988 when a gift of Śembyan Mahādevī to this shrine is related in extenso. All other inscriptions are Parakesari records which

are merely assumed to refer to Uttama Coḷa.

Concluding the discussion of the dvitalas, it is clear that the contents of their inscriptions allow for a re-interpretation of their dates. Since the "transitional" dvitala at Tirukkodikkaval (no. 9) is firmly dated by a record of A.D. 980 and the other "transitional" dvitala at Vriddhāchalam (no. 10) can be attributed to A.D. 981, we are inclined to date all other dvitalas just mentioned immediately after A.D. 980.

There are a few ekatalas which would seem to contradict our previous statement that all ekatalas were constructed before the dvitalas. It concerns the shrines at Āḍuturai (no. 4), Tiruvalaṅguḷi (no. 5), Tirunaṟaiyūr (no. 6), Tiruvirāmeśvaram (no. 8) and possibly Tiruppugalūr (no. 7). According to us, inscrip-tional evidence was once more interpreted wrongly by either Barrett or Bala-subrahmanyam or by both. To start with the temple at Āḍuturai: a record from A.D. 985 informs us that the shrine was built by Śembyan Mahādevī and that previous grants were engraved on its walls. As we saw in the case of Kōṇēri-ṇṇāpuram, one should not draw the conclusion that such an inscription is contemporary with the year of completion of the koyil. On the contrary, it merely indicates that the building existed already for a few years and that at some time all these memorable facts were engraved simultaneously.

The records on the temple at Tirunaṟaiyūr all are inconclusive. Many of them are incomplete or built in. It is not correct to take the year mentioned in one of the undamaged inscriptions of A.D. 986 as the probable date of construction, as Barrett did. It may well be possible that the records of which, among others, the dates are no longer recognizable, are older than the undamaged ones. So, merely on these grounds, his suggestion must be rejected, which means that the temple could well be older than A.D. 986.

None of the inscriptions used by Balasubrahmanyam proves that the shrines at Tiruvirāmeśvaram, Tiruvalaṅguḷi or Tiruppugalūr were built during the days of Rājarāja I. They only mention gifts.

Despite the briefness of this survey, we venture to propose that indeed all eight ekatalas with a I-2-a/1-B-3 layout as well as the two simple dvitalas at Tirukkodikkaval and Vriddhāchalam were built before A.D. 980. Since the first activities of Śembyan Mahādevī became noticeable around A.D. 969, she must have commissioned an average of at least one temple every year. There is no reason why this speed should suddenly slacken off, so we may assume that within roughly four years a minimum of four more complex buildings were completed, i.e. between A.D. 981 and 985, the year in which Rājarāja I became king.

4.3.1.2. *Temples built during the reign of Rājaraāja I: A.D. 985-1014.*

There are reasons to doubt whether this extremely successful monarch inspired his architects in the same way as he did his army. As mentioned in chapter two, it is generally assumed that with his accession a new phase of Coḷa architecture started (p. 59). We accept this view, but want to point out that each monument constructed during his long reign is in fact not more than an assemblage of well-tried-out and well-known forms. In Fig. 35(p. 160) the nos. 15 and 16 represent the Śembyan Mahādevī style and were, therefore, built before Uttama Coḷa's death, as we shall see below (p. 167); the sequence of the monuments under nos. 17-27 shows an ever diminishing number of niches, while the entire layout becomes simultaneously less complex. The shrine at Tirukkoḷḷikkāḍu (no. 28) was renovated in the days of Kulottuṅga I or even later, as we shall point out in the next chapter. Not one form is new, though their combinations show a wide variety. Since these shrines do not bear dated inscriptions on their walls the sequence we propose relies entirely on a few assumptions. The most important of these is that the reduction of niches is a result of the appearance of mukhamāṇḍapas, which became a permanent addition to the temples. This reduction seems to have been a gradual process in which the architects first tried to replace the superfluous niches by blind niches(BN), pañjaras(P) or even kumbhapañjaras(KP), till they finally realized that a straight forward wall with only one niche, is in fact, the most satisfactory solution of all.

These large mukhamāṇḍapas were either the result of — among others — a shifting preference from stone to metal sculptures which had to be stored inside, or *vice versa* they inspired the artists to concentrate on the production of costly, metal images instead of stone figures. In either case niches on the outside of a building were no longer necessary.

Our second assumption is that, at a certain moment, the need for new, stone temples was satisfied. This is not very unlikely after the hectic period of construction activities in the delta. For the sthāpatis had indeed reached their geographical limits at Nāgapattinam and Śembyan Mahādevī with the completion of the dvitalas at these sites. From then onwards one may expect (re)construction activities to occur everywhere between Śrīnivāsanallūr in the western tracts of the Kāverī and Nāgapattinam on the coast. This implies, however, that we can no longer consider the geographical position of a monument in a particular distribution-pattern as a decisive factor with regard to its date. From now onwards we have to rely exclusively on inscriptional evidence — which is extremely meagre — and on the architectural features of the other koyils listed in appendix 11 and not yet discussed(cf. Table A, p. 90).

However, one problem remains: the Rājarājeśvara at Tañjāvūr, which according to an indisputable inscription on its base was consecrated ca. A.D.1010, when the king handed over the stūpī, or finial, which in itself must have been 3.35 metres high.<sup>57)</sup> The problem is obvious when comparing the measurements of an average vimāna with that of the Rājarājeśvara. The granite blocks to be cut and carved for one wall of an ordinary dvitala have to cover a surface of roughly 18-20 sq. metres; for one wall of the Rājarājeśvara stones for 450 sq. metres had to be provided. The total surface of the superstructure of a dvitala hardly exceeds 80 sq. metres; that of the spire at Tañjāvūr amounts to 2850 sq. metres excluding the innumerable kuṭīs, karṇakuṭīs, śālās, a comparable number of images in their niches and thirteen kapotas.<sup>58)</sup> In order to give the reader some idea we can say that the plain surface of the Rājarājeśvara is more than 25 times that of a village dvitala, while the granite blocks required for the entire temple complex exceeds roughly 50 times the quantity needed to raise a village koyil.<sup>58)</sup> On the basis of an average production of one (and a half) small temple every year — which seems to have been the output of the workshop of Śembyan Mahādevī — it would, theoretically, have taken almost half a century to build the monument at Tañjāvūr. Since Rājarāja I ruled for 30 years, it can safely be assumed that the building was completed within this period. Consequently, the artisans of Śembyan Mahādevī's workshop had to double their efforts somehow — to put it euphemistically. This means that they succeeded in training unexperienced men, turning them into highly qualified craftsmen.

Of course, laborers extracted by force from the conquered territories could have solved at least part of the problem, i.e. they could have been employed as stone cutters in the granite quarries. But even a good stone cutter is not a substitute for a talented, family-trained sculptor. Unfortunately, that is exactly what the stone cutters of South Indian temples had to be. For, every granite stone is carved *in situ* into a shape fitting into the total sculptural appearance of a building. This is clearly demonstrated, among others, in our illustrations (cf. Pls. 38b, 38c, 45b, 71b and 73). In view of all this we believe that the construction of this stupendous shrine in honour of Śiva took about 30 years and was mainly the work of the, admittedly, enlarged atelier of Śembyan Mahādevī which was supplied with granite blocks prepared by forced labour in the quarries some 50 kms away.<sup>59)</sup>

The implication is either that the building activities on the village level came to a complete standstill or that most of the skilled craftsmen were called to Tañjāvūr in order to raise the Rājarājeśvara, thus leaving the construction of village koyils to the less trained artisans. However, the first course of events is not very likely, for the existing, dilapidated brick shrines could



meanwhile collapse and would have to be reconstructed. So, we believe that in cases of emergency one of the assistant architects was temporarily sent to the countryside in order to help with the renovation of a village koyil.

The question remains, though, in which year the artists were called to the capital. In view of the technical and logistical problems which had to be solved first with regard to the construction of a granite sāndhāra of that size, it is not likely that this happened already in the first years of Rājarāja's reign. Taking into consideration the time necessary for organizing the required manpower from the conquered territories<sup>60</sup>), for levelling the building site and raising the six metres high platform on which the vimāna and the two maṇḍapas in front stand, we can allow about five years to have passed before the trained craftsmen could start on the rough shaping of the rounded kumuda and the vyāli friezes. Once Śembyan Mahādevī's chief architect(s) — after having finished the tritala at Tiruvārūr (no. 15) — had been called to the capital at an early date (ca. A.D. 985), the task of restoring or rebuilding shrines which had meanwhile collapsed, was transferred to assistant architects.

Although we are unable to judge whether the authority of one chief architect is the main reason why all temples of Śembyan Mahādevī's age resemble each other, we venture to propose that the absence of such an influential person freed his assistants from his dominant style, thus creating room for a more playful way of combining known components into a new concept. This could explain why the monuments which according to us were built between A.D. 985-1014, are all different. However, if we are right in believing that building activities in the delta went on for another five years before the actual construction of the Rājarājeśvara started, then these monuments must fall into two categories, viz. those which were built between A.D. 985-990 and those belonging to the years A.D. 990-1014.

The number of shrines raised in these two periods is about the same. The first group should show a closer affinity with the style of Śembyan Mahādevī. Moreover, they will resemble each other in certain respects because they were designed within a short period. The other temples would probably demonstrate less or no uniformity for they were constructed over a relatively long period and many years after the last product of the workshop under Śembyan Mahādevī was finished (cf. Pls. 62-64).

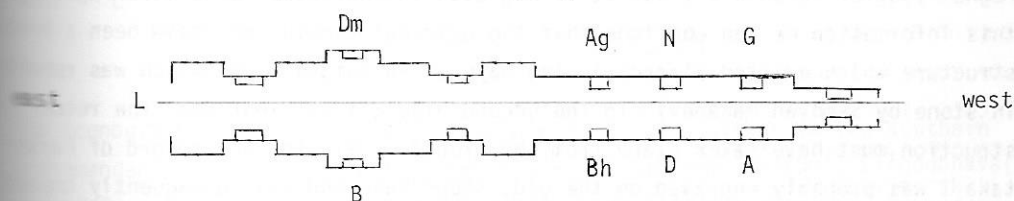
The supposedly slow speed with which village shrines were raised, was continued far into the 11th century, for during the 32 years of Rājendra's long reign only eight koyils were commissioned in and around the delta.<sup>61</sup>)

Although we realize that we have only superficially touched the problem of the building history of the Rājarājeśvara and its implications for the architecture in the delta, we nevertheless reject the idea that this gigantic shrine was raised in six years as Balasubrahmanyam believed when he deducted the year of the earliest recorded gift to this koyil (A.D. 1004) from the year in which the stūpī was handed over (A.D. 1010) <sup>62</sup>) The main body of the building could have been ready, but the sculptural details were definitely not as the many bare, blocked-out shapes on the walls and pilasters show. In our opinion this proves that the sculptors worked on this temple till the king's death in A.D. 1014.

We shall now discuss the monuments which were supposed to be constructed between A.D. 985-1014 (appendix 11, nos. 15-27) as well as their inscriptions in order to demonstrate that the contents of these records allow for an earlier and/or a more accurate dating than suggested by Balasubrahmanyam.

### 11. The Acalesvara at Tiruvārūr.

The Acalesvara is the first — and last — true tritala ever designed by the Early Cholas. <sup>63</sup>) The building has the following layout:



This III-5-c/3-A-3 monument is exceptional in four other respects: the ground-plan of the vimāna is an exact copy of the remarkable layout of the shrine at Tiruppalanam, the oldest of the Sapta Sthānas (Pl. 23); the absence of a false antarāla is strange in view of the number of niches in the ardhamandapa walls; the presence of a real antarāla in front of the ardhamandapa is a new addition which, moreover, has one niche in each wall and finally, the large number of niches in the walls of its vimāna is confusing for the number of nine images in these walls was not caused by a sudden increase in representations of manifestations of Śiva in stone, since the six additional sculptures are only attendant deities or ṛṣis. This indicates that the enlargement of the normal II-(2,3 or 4)-b vimāna into a III-5-c sanctum was not the result of a standardized extension of accepted iconographic forms. It is, therefore, not surprising that this large number of niches was repeated only once, viz. at Nāgapaṭ-



ṭinam, a town not far from Tiruvārūr. In all other cases the sthāpatīs reverted to the old dvitala or even ekatala type.

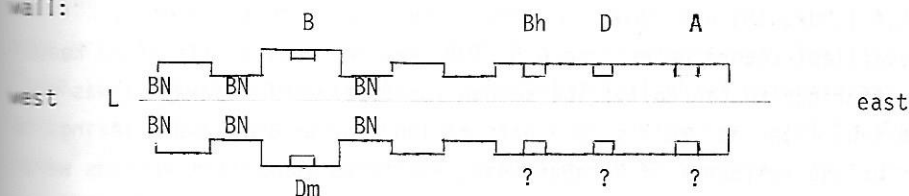
The iconographical arrangement of the niches from west via north to east is as follows: Ardhanārī(A), Durgā(D), Bhikṣāṭana(Bh), Brahmā(B), Liṅgodbhava(L), Dakṣiṇāmūrti(Dm), Agastya(Ag), Naṭarāja(N) and Gaṇeśa(G). The southern niche in the antarāla is empty, its counterpart on the northern wall is built in by the mukhamāṇḍapa. This was the normal iconographical layout of the temples raised in the previous fifteen years. As we shall see shortly this fixed set of figures was no longer prescribed after A.D. 985/90. We believe that the arrangement of the deities became a matter of free choice during the construction of the sky-high proclamation of Rājārāja's power. For, a new iconographical layout had to be invented *ad hoc* for the great shrine at Tañjāvūr, due to the unusually large number of niches in each wall. As for the date of the Acaleśvara, there is a record dated in A.D. 987 mentioning a gift of silver vessels by Śembyan Mahādevī for the merit of her son Uttama Coḷa. In another record dated A.D. 992 we are informed that she built this koyil of stone and that, among others, she presented 234 kasu(p. 34, note 12) for repairs and for structural additions to the temple. A record on the west wall of the maṇḍapa dates from the 32nd regnal year of Parāntaka I but it is engraved in characters of a later age. From this information we can conclude that the original temple must have been a brick structure which existed already in the days of Parāntaka I and which was rebuilt in stone by Śembyan Mahādevī. In the second place, it is clear that the reconstruction must have taken place from the ground-level, for the record of Parāntaka I was probably engraved on the old, stone base and was subsequently copied on the walls of the maṇḍapa. Had the original base been maintained — and with it the original layout — then we would have found the inscription there. Since this is not the case we may safely assume that the layout of this shrine is new and that the absence of a false antarāla is not due to the presence of an old base. In the third place, the reference to Śembyan Mahādevī as the builder of this koyil, should be interpreted as a casual information, for, after she had financed this shrine some years earlier we are now told that she paid for the necessary repairs and additional maṇḍapa(s). Since Śembyan Mahādevī already donated some precious gifts in A.D. 987 (a record in which information with regard to architectural aspects is absent) it is likely that the tritala at Tiruvārūr existed already in A.D. 987. In view of the architectural development in the delta during the last three decades of the 10th century, we can conclude that the temple was built ca. A.D. 985.

There are three further arguments which seem to support this statement.

the first place, the Acalesvara at Tiruvārūr is the tallest monument ever commissioned by Śembyan Mahādevī. Starting with only ekatalas, she proceeded to raise dvitalas and, finally, just before Rājarāja I moved "her" army of artisans, she built a tritala. (This obvious trend in South Indian architecture of the 10th century was continued under Rājarāja I when he ordered "his" sāndhāra to be thirteen storeys high). In the second place, the strict iconographical layout at Tiruvārūr is in accordance with the customs of those days, i.e. the reign of Uttama Coḷa. In the third place, the fact that this period ends with yet another contribution to Early Coḷa architecture, viz. the antarāla, after the successful introduction of the 1-B-3 type some fifteen years earlier, seems in line with the originality displayed by Śembyan Mahādevī's workshop.

12. *The Gaṇapatīśvara in the Uttarapatīśvara at Tiruchcheṅgāṭṭaṅguḍi.*

Here again we are confronted with a building of which the central part of each vimāna wall juts out, while its ardhamāṇḍapa has severe, straight walls. Its layout II-4-b/1-B-3 is completed with two extra (blind) niches in each vimāna wall:



The iconographical arrangement is incomplete, for the niches in the southern ardhamāṇḍapa wall are all empty. The figures of Dakṣiṇāmūrti (Dm), Liṅgodbhava (L), Brahmā (B), Bhikṣāṭṭana (Bh), Durgā (D), and Ardhanārī (A) are standing in the niches usually reserved for them.<sup>64)</sup>

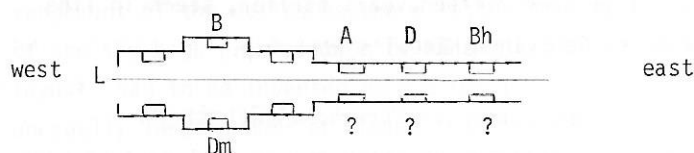
The layout of the Gaṇapatīśvara resembles that of the monument at Kuhūr (no. 11). On the other hand, the blind niches (BN) in the recesses remind us of the large II-4-b vimānas at Tiruviḍaimarudūr (no. 13) and Śembyan Mahādevī (no. 14), although these temples have worshippers or attendant deities in their lateral niches.<sup>65)</sup> However, it is obvious from Barrett's illustration that the sculptures at Śembyan Mahādevī are not well adjusted, for they almost tumble out of their niches. These are probably as shallow as the blind devakoṣṭhas of the Gaṇapatīśvara at Tiruchcheṅgāṭṭaṅguḍi. If so, both shrines are completely identical, implying that the Gaṇapatīśvara is not an aberration II-4-b/1-B-3BN, but an "ordinary" II-4-b/3-B-3 monument without surprising archaisms or new additional features as is the case with all shrines built during the reign of Rājarāja I. We, therefore, classify it as one of the latest koyils commissioned by

Śembyan Mahādevī implying that it was constructed just before A.D. 985.

This point of view is not contradicted by inscriptional evidence, for the earliest record dated A.D. 988 mentions merely a gift by some citizens. Since the next donation was mentioned sixteen years later in A.D. 1004, the shrine could well have been erected some years before A.D. 988.

17. *The Kārōnasvāmin temple at Nāgapattinam.*

This shrine has the following layout :



The lateral niches of this II-2-b/3-A-3 building contain worshippers or attendant deities. The remaining figures are Dakṣiṇāmūrti (Dm), Liṅgodbhava (L), Brahmā (B), Ardhanārī (A), Durgā (D) and Bhikṣāṭana (Bh). The other niches are empty.<sup>66)</sup>

The earliest record dates from A.D. 1010 and mentions a gift of 20 kasus for food offerings to the deity. The second inscription (of Rājārāja I) was engraved in A.D. 1014 and refers to a gift of land for worship and offerings to the god by the residents of Nāgapattinam. The three subsequent records were issued in the reign of Rājendra I between A.D. 1015 and 1019 and refer to a gift of jewellery set with precious stones for the silver image of Nāgaiyalar, a donation of silver utensils, a gift of land made tax-free by some citizens, twice a gift of 87½ kalañjus of gold from China and once a gift of 60½ kalañjus for jewels, worship and food offerings to an image of Ardhanārī set up by the donor.

From these inscriptions it can be inferred that the shrine received special attention from merchants of the internationally important port of Nāgapattinam. None of the records mentions royal interference in the affairs of this temple. We are given the impression that important gifts were only occasionally recorded on the walls of this shrine. This implies that it could well have been in existence years before A.D. 1010, the date of the earliest inscription (of Rājārāja I). We may add that between A.D. 1019 and the reign of Rājadhirāja (A.D. 1052-1064), only two more records were engraved on this temple. They refer to the gift of an image of Adavallan and a grant for food offerings on every Sunday.

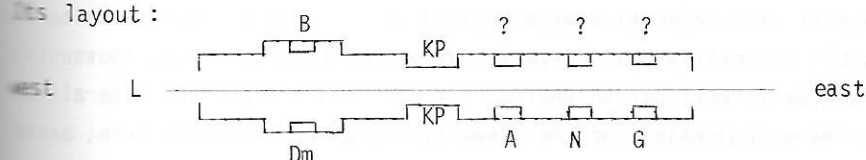
In view of this low average of one inscription recording a gift during

roughly every twenty years in the middle of the 11th century, it is justified to accept a similar low rate of recording gifts to the Kārōnasvāmin during the first 20 or 25 years of its existence (A.D. 985/90 - 1010). When dealing with the various kāl decorations in the next chapter we shall demonstrate that ca. A.D. 985 is the most acceptable date for the construction of this monument.

#### 18. The Sattivaneśvara at Pateesvaram.

Although there are no Early Coḷa inscriptions referring to this shrine, we shall try to substantiate our view that this relatively simple II-2-b/1-B-3 monument might belong to the small group of II-2-b vimānas built during the reign of Uttama Coḷa (nos. 9-10) in spite of one disturbing feature which may seem to contradict this attribution.

Its layout :



does not provide an answer to the problem of its dating, nor does its height. There is, however, one peculiar, ornamental detail which deserves our attention, viz. the presence of a flat kumbhapañjara on the walls of the false antarāla.<sup>67)</sup> To stress the most unusual character of this phenomenon we may point out that in all other monuments listed in appendix 11, the walls of a false antarāla are either bare or decorated with a kind of niche which sometimes functions as a window frame. In this case the wall between the pilasters of this frame is pierced by one or more lozenge-shaped holes.

The way in which the various decorations of a false antarāla (type B) are distributed over the temples built between A.D. 969-1000 is given below:

type of vimāna	decoration of bare	decoration of window	false antarāla blind niche	(kumbha) pañjara
II-2-a	Kīraṇūr(2) Tirunāgeśvaram(3) Ādaturai(4) Tiruvallaṅguḷi(5) Tirunagaiyūr(6)	Kōṇērirājapuram(1) Tiruvirāmeśvaram(8)	Tiruppugalūr(7)	Pateesvaram (18) (KP) ↓ ?
II-2-b	Tirukkodikkaval(9)	Vriḍdhāchalam(10)		↑
II-4-b	Ānangūr(12) Tiruchcheṅgattaiyūdai(16)	Kuhūr(11) Tiruvīḍaimarudūr(13)	Śembyan Mahādevī(14)	
all types	Tirukkadaiyūr(22) Puñjai(25)	Kuttālam(19) Tiruvallaṅguḷi(20)	Tiruvārūr(15) Tiruvallaṅguḷi(20) Tiruvaiyāṇi(24) Tirumiyachehūr(26)	Manampādi (P) (21)



Italics indicate that the temple at a particular site is characterized by a further feature, viz. the presence of a makaratoraṇa over each and every niche and blind niche. The monument at Tiruvārūr is included for it has blind niches in the walls of its antarāla, although the false antarāla (B) is not incorporated in the layout.

From this distribution the following facts become apparent:

1. During the first ten years of Uttama Coḷa's reign at least three designs of the false antarāla wall were applied while a full set of makaratoraṇas was alternatively selected for the walls of the ardhamāṇḍapas.
2. The two transitional monuments at Tirukkodikkaval (no. 9) and Vriddhāchalam (no. 10) each represent a different type of false antarāla, while they also differ with regard to the application of a full set of makaratoraṇas.
3. Three kinds of wall decoration were applied on the dvitalas built during the final years of Uttama Coḷa (nos. 11-14, 16); three koyils in this group possess the full set of makaratoraṇas, whereas the wall space above the lateral niches of the ardhamāṇḍapas of the other two monuments remained bare, as if the artists wanted to provide each member of the otherwise uniform groups with some individuality.
4. The temples supposed to belong to Rājarāja's reign are almost equally distributed over all types of ground-plan and the four types of wall decoration, while almost all have the full set of makaratoraṇas.

Of course no full set can be expected in the 1-B-1 temple at Tirukkaḍaiyūr (no. 22) with only one niche in each wall. On the other hand, the Naltunai Īśvara at Puñjai (no. 25) can be included, for its southern ardhamāṇḍapa wall is decorated with makaratoraṇas above all niches. The peculiar shape of this ornament over the Agastya niche, where it is merely an arch (Pl. 60b), deserves our attention. Perhaps the sculptor wanted to stress the human character of the saint. Curiously, the architects of the Śrī Kapardīśvara at Tiruvalaṅguḷi (no. 20) did not select one but two different ways of decorating the false antarāla: on its northern wall we noticed a blind niche, on its southern wall a window frame embracing six lozenge-shaped holes.

Whereas the pañjara on the walls of the false antarāla at Manampādi (no. 21) is merely a repetition of the same ornament in the recesses of its vimāna walls, the kumbhapañjara at Pateesvaram strikes us as a remarkable phenomenon. This kumbhapañjara is, however, not entirely unique, for it was also applied on the Śrī Kapardīśvara, albeit on the walls of its vimāna only. There, moreover, the kumbha, or flower-pot, is not flat as at Pateesvaram, but has the three-dimensional shape a pot should have. In view of the fact that the rounded kumbhapañ-

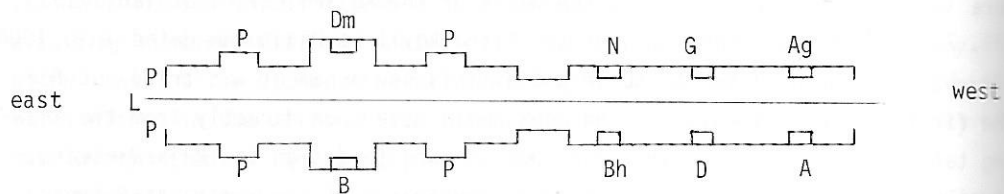
Jara is also a common element on the walls of the Rājarājeśvara at Tañjāvūr (Pl. 73) and in the pañjaras(!) of the Viṣṇu koyil at Dadapuram dated A.D. 1006 (Pl. 52b), we are inclined to believe that this new ornament was tried out for the first time at Pateesvaram. The idea could have come directly from the drawing table of the sthāpatis who were commissioned to design the Rājarājeśvara, causing the unrealistic, two-dimensional appearance of the kumbha at Pateesvaram. Although this statement seems as unrealistic as the flat kumbha itself, we may point out that the building of a stone colossus of more than 60 metres high—standing on a platform measuring 30.18 sq. metres—constructed with stones which had to be transported over more than 50 kms and inaugurated on the 275th day of the 25th regnal year of the king (A.D. 1010), must have existed on paper decades earlier. These drawings — characterized, among others, by many novel ideas such as new forms of Śiva, kumbhapañjaras in each recess and makaratoraṇas over every niche — could, in the mean time, have inspired the sthāpatis of the koyils built during the five years in which the logistical and technical problems inherent in the design and subsequent construction of such an stupendous shrine had to be solved.

In view of all this the monument at Pateesvaram with its severe II-2-b/1-B-3 layout, but with futuristic, though flat kumbhapañjaras, could be dated after the completion of Śembyan Mahādevī's shrine at Tiruvārūr, i.e. ca. A.D. 885-990. Nevertheless, its pilaster decoration — an aspect which will be discussed in the next chapter — associates the temple with the earlier products of Śembyan Mahādevī's atelier. The flat version of the kumbha might then be considered the first, though unsuccessful experiment which at that time did not yet find favour and was, therefore, not repeated. The manifest wish of Śembyan Mahādevī's sthāpatis to use alternatives when decorating the walls of a false anta-rāla may explain why this attractive ornament was selected in the first place. The earlier disinclination of the artist to incorporate the kumbhapañjara on other Uttama Coḷa buildings then evaporated when confronted with the problem of how to decorate the immense number of recesses on the walls of the Rājarājeśvara. So, they then probably reverted to the old concept while adapting it slightly, thus creating the rounded kumbhapañjara.

### 12. *The Uktavedeśvara at Kuttālam.*

The temple has the II-2-b/1-B-3 layout and can be compared with that at Tiruvādūrāi.<sup>68</sup>) The difference is that at Kuttālam there are two extra pilasters to balance the second tala, while the pañjaras remain under the kapota of the vi-





māna and are absent on the walls of the ardhamandapa, whereas at Tiruvādūtūr the proud Ia type was applied on all the walls(pp. 123-24).

Starting, clockwise, from the entrance on the west, the iconographical layout is Ardhanārī(A), Durgā(D), Bhikṣāṭana(Bh), Brahmā(B), Liṅodbhava(L), Daśiṅāmūrī(Dm), Naṭarāja(N), Gaṇeśa(G) and Agastya(Ag). The only available inscription dated A.D. 992, tells us that this temple was built by Śembyan Mahādevī. From its wording we can infer that it is a summary of Śembyan Mahādevī's donations to this shrine. They concern "gifts of land for offerings, worship, music and for maintaining 25 brahmins..." Balasubrahmanyam believed that this (II-2-b) monument dates from the reign of Uttama Coḷa and resembles the (I-2-a) koyil at Kōnērīrājapuram.<sup>69</sup> This supposed resemblance probably induced Balasubrahmanyam to date the temple at Kuttālam between A.D. 969-985. However, the two koyils are not really comparable, for they differ in height and in ground-plan due to the application of pañjaras. Consequently, the Uktavedeśvara at Kuttālam cannot be dated in the reign of Uttama Coḷa. The re-appearance of pañjaras on the walls of this shrine could be explained by the wish of its architect to provide it with the royal appearance of a vimāna with nine niches as at Tiruviḍaimarudūr, Śembyan Mahādevī, Tiruchcheṅgāṭṭaṅguḍi, Tiruvārūr and Nāgaṭṭinam (appendix 11, nos. 13-17) by replacing the rather unusual attendant deities or ṛṣis by pañjaras — a process of which we observed the final phase a century earlier at Puḷḷamaṅgai(p. 114). For the second time the Early Coḷas seem to have rejected the concept of three niches in the wall of a vimāna in favour of pañjaras. Since the iconographical layout in which Naṭarāja, Gaṇeśa and Agastya are represented in the southern wall of the ardhamandapa, seems to relate this monument closely to the other koyils built by Śembyan Mahādevī, as we shall see further on (pp. 178-80), the Uktavedeśvara can be dated ca. A.D. 986.

## 20. The Śrī Kapardīśvara at Tiruvaḷaṅguḷi (Pls. 63c-d).

This monument strikes us as a highly original building(p. 175). In the first place, the Agastya figure is absent; in the second place, the ground-plan of its ardhamandapa is new — at least in combination with a B layout; thirdly,

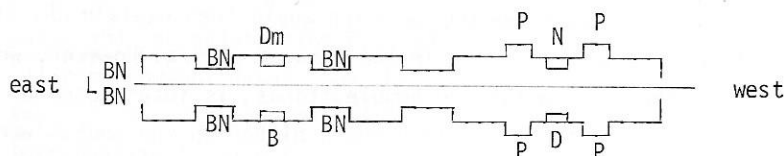


Its iconographical layout is similar to that of the previously discussed shrine which means that the Agastya figure is absent. Starting clockwise, from the entrance we meet Bhikṣāṭana(Bh), Naṭarāja(N), Gaṇeśa(G), Dakṣiṇāmūrti(Dm), Līlāgodbhava(L), Brahmā(B), Ardhanārī(A), Durgā(D) and Gaṅgādhara(Gd).

The oldest inscription dates from A.D. 1016 which is the 4th regnal year of Rājendra I. It deals with a gift to the flower garden by a donor whose name is not mentioned. Due to the absence of records before and after this year we cannot establish the date of this temple with certainty. Considering its close structural and iconographical affinity with the Śrī Kapardīśvara at Tiruvalān-guḷi and its dissimilarity with all other shrines listed under nos. 22-37 in appendix 11, we propose a date between A.D. 988-990.

22. *The Amṛtagheśvara at Tirukkaḍaiyūr* (Pls. 63a-b).

This II-3-b/1-B-1(BN) monument has the following, unique ground-plan.



According to our list it is the first deviation from the dominant type of maṇḍapas with three niches, be it in the A or B layout. This implies that a decision had to be taken as to which deity had to be placed in the one and only niche of the two ardhamāṇḍapa walls. Since the choice fell on Naṭarāja and not on Gaṇeśa the temple was probably built during Rājārāja's reign and not in or before the days of Śembyan Mahādevī, when the elephant god was always present.

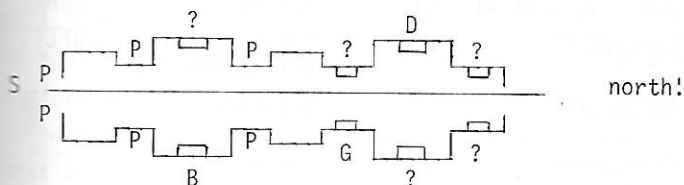
According to the inscriptions dating from the 24th and 36th regnal year of Rājendra I, the shrine was called after its donor Kalakala who is also mentioned in a record of A.D. 998 in which it is stipulated that he should pay a fixed quantity of paddy to the temple every year for the expenses of worship and for maintaining three lamps before certain images out of the proceeds of land he purchased from the temple. In view of this Balasubrahmanyam believed that the shrine was built by this person. This seems a good suggestion as it would explain why the ardhamāṇḍapa walls have only one niche instead of three (cf. pp.139-40).

We shall try to adduce further arguments to justify our opinion that a temple with one niche in each ardhamāṇḍapa wall could date from the end of the 10th century. The koyil at Tirukkaḍaiyūr closely resembles that at Kuttālam (no. 19) which was built by Śembyan Mahādevī. The Ia pañjaras on the ardhamā-

apa walls of the former are placed in the same curious way as the Ib pañjaras on the vimāna walls of the latter, viz. they both jut out. In fact, one could say that the pañjaras on the vimāna walls at Kuttālam are replaced by blind niches at Tirukkadaiyūr and the lateral niches of the ardhamandapa walls at Kuttālam by pañjaras at Tirukkadaiyūr. Moreover, both buildings show the same refinement in the decorative details of the pilasters and other wall ornaments.<sup>70)</sup> We are, therefore, inclined to believe that these two shrines were constructed by one and the same architect, the larger one at Kuttālam financed by a queen, the smaller temple by a wealthy merchant from Tirukkadaiyūr possibly having his business at Nāgapaṭṭinam, the neighbouring port. Being a "citizen koyil" the shrine at Tirukkadaiyūr can be compared with the group of monuments we encountered at Gōvīndaputtūr, Gandaradittam and Tirukkuhukavūr (pp. 139-40), all of the same 1-B-1 class. Since its II-3-b vimāna deviates from the ground-plans applied during the Śembyan Mahādevī phase and represents a type unknown among the monuments built by commoners at the three villages just mentioned, we propose to date this koyil after the completion of the temple at Kuttālam, i.e. between A.D. 986-90.

### III. The Ten Kailāsa at Tiruvaṛyāyūr (Pl. 47).

The II-4-b/1-A-3 building has the following lay-out:



This curious monument of which the central part of the ardhamandapa once again juts out although connected directly with the vimāna, carries two stunning inscriptions from which no date can be inferred. One merely mentions the full regnal title and name of Rājendra I as given in his copper-plates without further comment or information. The other records in detail the various ornaments donated to this temple without referring to any particular years.

In contrast to the inscriptions, the remaining sculptures provide interesting information, for one of them represents Subrahmaṇya(S) who, so far, was never incorporated in the iconographical arrangement. Combining this fact with the old-fashioned A layout we are reminded of three other monuments located along the northern bank of the undivided Kāverī. At Tudaiyūr(pp.130-31 and

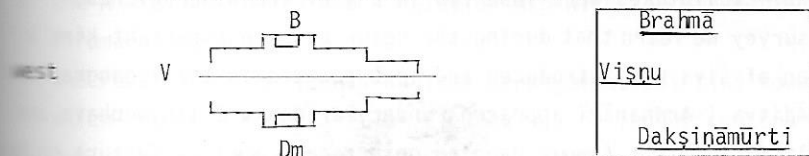


Pls. 45a-b, showing a I-2-a/1-A-1 building), the niche normally containing Gaṇeśa gives shelter to Sarasvatī, Dakṣiṇāmūrti — usually seated — is replaced by a standing Vīṇadhara Dakṣiṇāmūrti and in the western niche of the vimāna the builder placed a sculpture of Ālīṅgamūrti.<sup>71</sup>) At Goburapatti(pp. 134-35 and Pl. 49 showing a II-4-b/1-A-1 construction) Liṅgodbhava and Durgā were replaced by Harihara and Sarasvatī respectively. All these deities as well as many others are represented on the walls of the Rājarājeśvara at Tañjāvūr. Earlier on, we suggested that the artists of this gigantic koyil set the trend for the drastic changes in the iconographical layout. For the first time they depicted numerous manifestations of Śiva in sculpture. In addition they must have unhinged the fixed iconographical arrangement due to the mere fact that the double row of five niches in the ten metres high vimāna walls could not be repeated on an ordinary ekatala or dvitala(cf. Pl. 73).

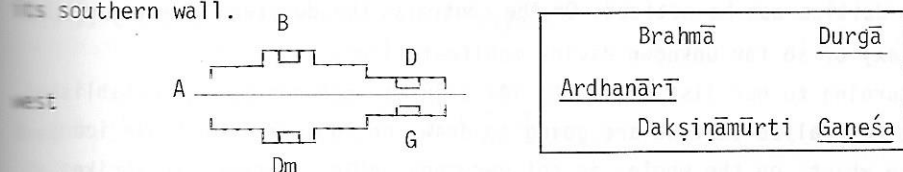
As the sculptors of the village koyils built towards the end of the 10th century obviously felt at liberty to select any image to their liking, we can expect this freedom visualized especially in those shrines where the artist had to make a choice because the ardhamandapa had only one niche. If we are right, then temples which, according to us, were raised in the last decade of the 10th century or later with either a 1-A-1(3) or a 1-B-1(3) layout should show different deities in at least one niche of their ardhamandapa walls. We have listed these buildings below:

Name of village	a r d h a m a ṇ ḍ a p a	
	deity in central niche	deities in other niches
Tudaiyūr(app.8,no.8)	Sarasvatī	Vīṇadhara Dakṣiṇāmūrti, Ālīṅgamūrti;
Goburapatti (app.8,no.13)	Sarasvatī	Harihara;
Tirumaṅgalam (app.8,no.14)	Bhikṣāṭana	Viṣṇu;
Puñjai(app.9, no.27)	Gaṇeśa, Agastya	-
Uyyakkōṇḍān Tirumalai (app.9,no.29)	Bhikṣāṭana	Ardhanārī;
Tiruvaiyārū(UK) (app.10,no.8)	Naṭarāja	?
Tirumiyachchūr (app.11,no.26)	Gaṇeśa	Gaṅgāvisarjanamūrti, Ālīṅgamūrti, Rṣabhāntika;
Tiruvaiyārū(TK) (app.8,no.10)	?	Subrahmaṇya(vimāna);
Rāmanātha Kōyil (app.11,no.30)	?	Caṇḍeśvara, Bhairava, Candrasekhara;
Gaṅgaikoṇḍacolapuram Amman shrine(app.11, no. 33)	Naṭarāja	Subrahmaṇya, Bhairava, Gaurī Prasāda;

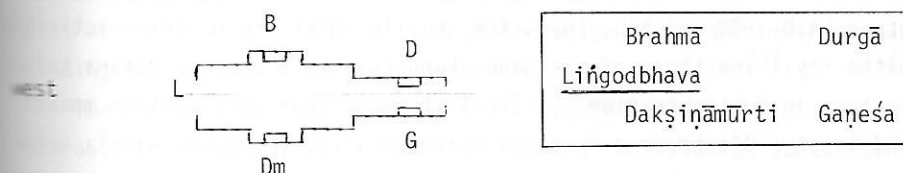
The significance of this list will become evident when columns 2 and 3 are compared with the traditional sets of figures. Although there was no regular, iconographical layout during the first years of Āditya I (appendix 7, p. 378) it is generally assumed that the Trimūrti had to be represented as follows:



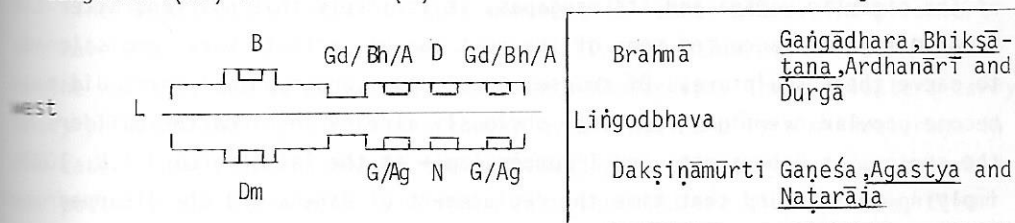
During the reign of Āditya I Viṣṇu was substituted by Ardhanārī, for Durgā a niche was made in the northern ardhamāṇḍapa wall, while Gaṇeśa was placed in the southern wall.



This set of figures remained unchanged till the days of Parāntaka I, except for the replacement of Ardhanārī by Liṅgodbhava.



Apart from the incidental occurrence of Agastya in the second extra niche of the southern ardhamāṇḍapa wall at Tiruvādūtūrai (pp. 125-26), this set of figures remained popular throughout the Śeṁbyan Mahādevī phase. These five deities are the core to which during the next twenty years four more figures were added. First of all Naṭarāja appeared pushing Gaṇeśa literally aside, either to the right or to the left. On the northern ardhamāṇḍapa walls either Bhikṣāṭana (Bh) or Gaṅgādhara (Gd) or Ardhanārī (A) were added on either side of Durgā.



These additions seem to indicate that at the beginning of Uttama Coḷa's reign in ca. A.D. 969 the introduction of only one new representation of Śiva did not satisfy the presumably increasing interest in this deity. This probably



applies to all temples listed under nos. 1-19 in appendix 11, although the set of figures in nos. 5, 10 and 13 are incomplete. In the shrine at Tiruvalaṅḡu (no.20) and Manampādi (no. 21) Agastya is replaced by Bhikṣāṭana, but no new — till then unknown — sculptures were inserted in any of the other niches.

From this survey we learn that during the reign of each important king a new manifestation of Śiva was introduced and incorporated in the iconographical layout. Under Āditya I Ardhanārī appeared, under Parāntaka I Liṅgodbhava and under Uttama Coḷa Śiva in his famous dancing pose became a fixed feature on the southern temple walls to which Bhikṣāṭana, Gaṅgādhara and Ardhanārī were added. However, during the reign of Rājarāja I no obvious preference for one or even four new deities can be noticed. On the contrary, the devotees were overwhelmed by a galaxy of so far unknown divine manifestations.

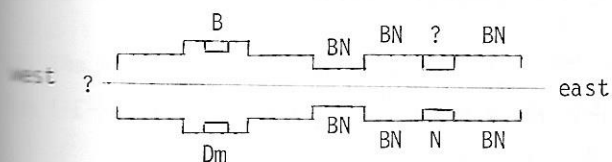
Returning to our list on p. 178 its significance can now be established, although we realize that we are going to draw conclusions from loose icons, a procedure which, on the whole, is not very advisable. However, it strikes us as significant that the monuments showing a wide variety of new iconographical forms are precisely those which, on other than iconographical grounds, can be dated between A.D. 990 and A.D. 1020, the year in which the building activities at Rāmanātha Kōyil and those of the Gaṅgaikoṇḍacoḷeśvara and the Uttara Kailāsa must have been in full operation.<sup>72)</sup> The list shows that at a certain moment Gaṇeśa and Agastya disappeared from the outer walls of a temple. Gaṇeśa eventually returned to the fold at Gaṅgaikoṇḍacoḷapuram, though in a minor position next to Naṭarāja. We already pointed out that the shrines at Goburapatti and Tirumaṅgalam (p. 135) were probably built between A.D. 990-1000 in view of the contents of an inscription dated in the last year. This is roughly fifteen years after the first plans for the Rājarājaśvara must have been made as a result of which the sthāpatis must have realized that the traditional iconographical layout would have to be complemented with over 60 images for the walls of the gigantic vimāna and its maṇḍapas. It is likely that not long after the final design was accepted some of the most capable artists were commissioned to carve these sculptures. Of course, these new iconographical forms did not become popular overnight, but they obviously already inspired the builders of the shrines at Goburapatti and Tirumaṅgalam — at the latest around A.D. 1000, implying that around that time the replacement of Gaṇeśa and the disappearance of Agastya had become a fact.

Returning to the Ten Kailāsa at Tiruvaiyāṭū which was the cause of this lengthy discussion, it is clear that this monument demonstrates the hybrid features of a transitional monument. Summarizing these are:

1. the pañjaras related to those on the temples at Kuttālam and Manampādi;
  2. the ground-plan of the ardhamañḍapa which is similar to that at Tiruvalaṅ-  
guḷi and Manampādi;
  3. the A layout indicating a relationship with the monuments at Goburapatti,  
Tirumaṅgalam and perhaps Tudaiyūr;
  4. the remains of the iconographical arrangement pointing towards the time in  
which the traditional set of figures was no longer customary.
- We therefore, date this koyil roughly A.D. 1000-1010.

54. *The Uttara Kailāsa at Tiruvaiyāṇṇu* (Pls. 64a-b).

This II-2-b/1-B-1 has the following layout :



Most of its images have disappeared or are severely damaged. However, the re-  
mains of the figure in the central ardhamañḍapa niche on the south side of the  
building, indicate that Naṭarāja once occupied this place.<sup>73)</sup>

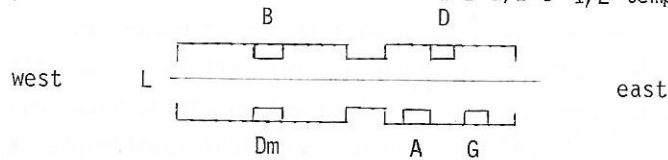
The two earliest inscriptions are dated in A.D. 1006 and are both royal  
records. The first informs us that a shepherd received 192 sheep for supplying  
ghee to this temple for the burning of perpetual lamps. The second inscription  
provides the name of the founder of the shrine, viz. Danti Śakti Vitanki or  
Laga Mahādevī, one of the queens of Rājarāja I. The temple was then called  
Laga Mahādevī Īśvara. Once again, it is obvious that Rājarāja I took personal  
interest in the welfare of the koyil, for we are given a painstaking account  
of an important organisational aspect of the temple affairs, i.e. the burning  
of perpetual lamps.

The architectural style of this monument is rather plump. The pilasters  
all have a massive character which is especially unpleasant in the blind niches  
on the walls of the false antarāla and the ardhamañḍapa. These pilasters carry  
heavy podigais and a plain uttira topped by a lintel and by a makaratoraṇa in  
the case of the blind niches on the ardhamañḍapa walls; on the false antarāla  
the podigais above the pilasters touch each other and are, as it were, tied  
together by a lintel which is placed immediately on top, supporting a makarato-  
raṇa. The mukhamañḍapa in front of this shrine is not connected to it and  
shows the same characteristics. The appearance of this complex reminds us of  
the Rājarājeśvara. There the plumpness of the architecture can be explained as

a result of the enormous size of the building, at Tiruvaiyārū we see the product of an artisan who forgot that he was no longer cutting stones for a gigantic replica of Mount Meru, but rather for a secondary shrine in the compound of the Pañcanādīśvara. He was definitely not a member of Śembyan Mahādevī's atelier, but probably an artist who had learned his trade while working on the koyil at Tañjāvūr. In view of all this we date the Uttara Kailāsa between A.D.1000-1100.

25. *The Naltunai Īśvara at Puñjai* (Pls. 60a-b).

This strange monument (pp. 145-46) has been mentioned frequently. In view of the above discussion about the disappearance of Agastya and Gaṇeśa from the traditional iconographical layout, the koyil becomes all the more curious. The presence of both deities on this I-1-a/1-B-1/2 temple



indicates that it was built either before the iconographical arrangement was drastically changed, viz. before A.D.990-1000 or long after that (cf. the data on Goburapatti and Tirumaṅgalam, p.181). A controversial inscription (p. 145) dating from A.D. 1007 refers in detail to a gift of 10 veli of land by Rājarāja for the maintenance of a dining hall called Arumolidevan (one of the king's names) on the condition that the temple and the Assembly would each bear half of the taxes. This implies that the shrine already existed in A.D. 1007 when Rājarāja I added the hall in question.

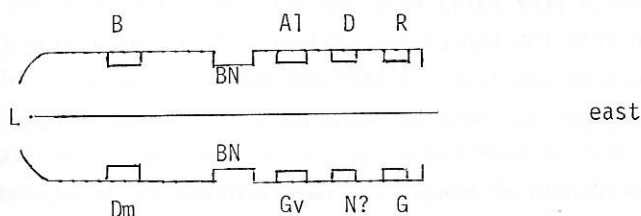
None of the architectural features reminds us of the style of Śembyan Mahādevī's workshop, for the archaic I-1-a vimāna was only known in the Muttarayar area and around Tañjāvūr; in the second place, the superb frieze of running animals above the kapota is located in exactly the same, unusual place as at Tirukkaḷavūr (Pl. 53); in the third place, the kūḍus are of a size which betrays that the sculptor was trained on the kapotas of the Rājarājeśvara and was familiar with the monument at Tiruchchennampūṇḍi built in the days of Āditya I (cf. appendix 6); and finally, the exquisite carvings on the makaratorṇas and pilasters are not so much a hall-mark of the Śembyan Mahādevī style, but rather of that of the Rājarājeśvara.<sup>74)</sup>

Assuming that apprentices working, among others, on the Rājarājeśvara at Tañjāvūr became highly experienced in the carving of lace-like ornaments as a result of the countless pilasters and makaratorṇas which they had to decorate, then such an artist, if called to work on a shrine somewhere else in the delta,

would certainly betray his experience. Since he must have been familiar with the Āditya I monuments around the capital he could also have incorporated some of the most striking features of these buildings. Aman demonstrating such skill in blending old and new ideas seems to be the only person who could possibly have invented the extraordinary southern ardhamaṇḍapa wall of the Naltunai Īśvara at Taṅjai. The extra niche for Agastya on this wall then results from the special attachment of the villagers to their beloved saint, whereas the shape and finish of the building indicate that its artists were trained for a considerable time in the ateliers at Taṅjāvūr. Consequently, we date the Naltunai Īśvara between A.D. 990-1007. When dealing with its unusual combination of kāl profiles we shall demonstrate that the temple can be attributed more precisely to the last decade of the 10th century.

38. *The Mihirāmaṇḍesvara at Tirumiyachchūr* (Pl. 64c).

This I-E-a/1-B-3 temple has the following ground-plan:



Starting clockwise from the entrance on the east its iconographical layout shows: Gaṇeśa(G), empty(Naṭarāja?), Gaṅgāvisarjanamūrti(Gv), Dakṣiṇāmūrti(Dm), Liṅgodeśvara(L), Brahmā(B), Ālīṅgamūrti(A1)(or Candraśekhara?), Durgā(D) and Ṛṣabhānanda(R). As far as we know no inscriptions have been discovered. The date suggested by Balasubrahmanyam is, therefore, rather arbitrary, so we can only draw our conclusions from the outward appearance of the shrine.

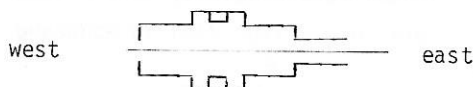
First of all we may point out that the ground-plan is alien to that in the delta. We are confronted with a building combining a typical Pallava feature, the elephant's back, with the 1-B-3 layout which is characteristic of the Śempan Mahādevī phase. In the second place, the shrine has makaratorṇas above all its niches including the blind niches of the false antarāla, a feature which it shares with all other 1-B-3 monuments built after A.D. 985(p. 171). Thirdly, the bhūtagaṇas are placed above a plain fascia.<sup>75)</sup> In the fourth place, the bhūtagaṇa frieze under the kapota of the ardhamaṇḍapa is compartmentalized by the shields which these bhūtagaṇas hold in their lefthands perpendicularly to the uttira. This feature reminds us of the koyil at Tirunāmanallūr (A.D. 935) in South Arcot.<sup>76)</sup> There the bhūtagaṇas alternate with slender rafter tops. In other words, it

seems to be an old idea re-applied in a new building. Finally, the decoration of all the makaratorṇas and pilasters is of high quality and the images are sharply cut but express, nevertheless, a great tenderness by their graceful features. This excellent workmanship can be compared with that of the Naltunai vara and the Rājarājeśvara.

In view of all this we propose that the Mihirāruṇeśvara at Tirumiyachch was built ca. A.D. 990-1000.

27. *The Śvetārāṇyeśvara at Tiruvenkāḍu* (Pls. 78a-b).

This shrine has the following, archaic I-2-a/1-A-0 layout:



Since the oldest records are found on the pillars in front of this temple, it must be a true copy of a previously existing brick or stone building on a stone base. An inscription from the 6th regnal year of a Rājakesarivarman repeats the contents of older records now lost. It mentions mainly large gifts of Śembyan Mahādevī since the days of her husband Gaṇḍarāditya. The last mentioned fact in this otherwise long list of events which are not arranged in a chronological sequence, is "that the Assembly of Nangur ... had received in the second year of Gandaradityadeva ... 400 kasu presented be Sembyan Mahadeviyar ... but had not made the necessary land provision for it. So it was ordered to be done now in the sixth year of Rajakesarivarman." <sup>77)</sup> From the explicite "now" in the record we can draw the conclusion that the word refers to the year in which the original record was engraved on the walls of the shrine, i.e. in A.D. 955. The present tense used in the original was subsequently, conscientiously, repeated in the days of Rājarāja I. Balasubrahmanyam, on the other hand, interpretes the word "now" as the day on which the old record was re-engraved on the walls of the new shrine, dating it implicitly as constructed just before the sixth regnal year of Rājarāja I, viz. before A.D. 991. However, the contents of the inscription concern a transaction in the second year of Gaṇḍarāditya (A.D. 951) who also used the epithet Rājakesari(varman). We can well imagine that the assembly of Nangūr was delayed for some reason and took the necessary steps only four years later, i.e. in the sixth year of Gaṇḍarāditya's reign. It is unrealistic to assume a delay of more than 40 years, which would be the case according to Balasubrahmanyam's reasoning. The year six of a Rājakesarivarman should, therefore, not necessarily be taken as A.D. 991, implying that the koyil could have



been renovated earlier or later.

When comparing the sculptural ornaments on the shrines at Tiruveṅkādū and Puñjai (Pls. 60a-b and 78a-b) we notice the same workmanship, especially in their friezes of energetically running animals, the large open kūdus and the panels. In these respects both shrines strongly remind us of the monuments at Lalgudi and Tirukkaḷuvūr (Pls. 32 and 53) erected a century earlier. These last two koyils also have the phantastic animal friezes; at Lalgudi it is in the proper place above the rounded kumuda of the adhiṣṭhāna as at Tiruveṅkādū; however, at Tirukkaḷuvūr and Puñjai it is placed on top of the kapota, because their bases do not have mouldings which can carry such a frieze. The impression is created that the artists of these two far younger shrines wanted to incorporate this kind of frieze by hook or by crook into the walls of their buildings. According to us this is a strong indication that the monuments at Puñjai and Tiruveṅkādū were designed by the same person(s) as was the case a hundred years earlier with the temples at Lalgudi and Tirukkaḷuvūr. Since we suggested that the Naltunai Īśvara at Puñjai was built ca. A.D. 990-1000 we suggest that the Śvetāraṇyeśvara at Tiruveṅkādū was completed about the same time.

*4.1.3 Temples built during the reign of Rājendra I in the Kāverī area:  
A.D. 1012-1044.*

We shall not dwell upon these monuments at great length, as most of their structural features are well known. Their ornamentation will prove to be the only valid criterion by which they can be distinguished from the group of Rājarāja koyils (nos. 19-27). The structural details of the nos. 29-37 given in appendix 11, confirms this statement, for no two buildings are identical (p. 381). At the same time none of them contributes a new element to the structural layout common in those days. As such this group continues the practice of combining old concepts in different ways as illustrated by the monuments of Rājarāja. However, with regard to the shapes of the kūdus and makaratorṇas, the profiles of the pilasters and last but not least the shape of the podigais, all these monuments reveal that they were not designed by the architects who were responsible for the construction of the shrines listed under nos. 19-27. Since these aspects are the subject of the next chapter the temples built under Rājendra I will be discussed there.

## **5. Conclusions**

In this chapter we established a preliminary division of chronologically arranged regions, each with its own dominant variant of vimāna, pañjara and/or ardhamāṇḍapa. It appeared that the three phases as indicated on pp. 23 and 59 can be re-



fined and applied to architecture of specific subregions as indicated below.

Between A.D. 870-910 experiments were methodically carried out in the area to the south of Śrīnivāsanallūr-Kilaiyūr. These concerned basic, structural aspects such as height, lay-out and number of niches. All these experiments display an intentional and immense variation which can only be explained when we assume the existence of one office or atelier in which plans were designed and stored. In such a situation it hardly matters who commissioned a temple, for it will betray features characteristic of the workshop. So, in early distribution-patterns "royal shrines" erected by vassals or generals or built due to local initiative, do not show up either as smaller replicas of "royal buildings", or as shrines belonging to a different category. The sites of all the koyils in question are located in or near the granite plateau country which might explain the predominance of tall buildings in this group.

Between A.D. 910-940 building activities moved eastwards. No further experiments with regard to height were carried out. Standard features of this period are the presence of five niches all flanked by pañjaras, a false antarālā and five standard images. The experimental character shows up in the shape of the pañjaras which, moreover, betray a decline in function and thus in size.

Between A.D. 940-970 small temples were raised either on local initiative in the delta or by Parāntaka I and his generals in South Arcot. Other shrines in this district display alien features due to either Pallava or Rāṣṭrakūṭa influence. The number of niches was not immediately copied from the Coḷas, layout and height, on the other hand, were imitated in the course of 50 years.

Between A.D. 970-985 the workshop was re-installed and produced many ekatalas in the central and eastern part of the delta during the first ten years of Uttama Coḷas reign. Later some dvitalas and one tritala were constructed in the same area. Outside the delta true copies of the products of this atelier were raised as far north as the Palar region. Towards the south, no such influence is apparent. No further structural experiments were tried out except for the relatively easy enlargement of the ardhmaṇḍapa and the standardization of nine niche images.

Between A.D. 985-1000 all types of buildings were constructed throughout the delta and beyond, each characterized by a specific combination of old and known features and a freedom with regard to the selection of devatās.

In the following chapter it will become evident that this preliminary division in regions and periods can be maintained, for the absence of structural innovations characteristic of the 10th century appears to be compensated by a remarkable development of ornamental details which run parallel to the combinations of old, structural forms, which we established throughout the Coḷamaṇḍalam.

# NOTES TO CHAPTER THREE.

- 1 Kramrisch 1946, pp. 261-86. Due to the fact that many Early Coḷa vimānas are closed in, it is almost impossible to establish to what extent they were built according to perfect proportions as prescribed by vastuśāstras. Nevertheless, it can be assumed that the Early Coḷa sthāpatis tried to achieve ideal proportions by trial and error, as will become obvious from our discussion.
- 2 Barrett 1974, p. 35-37.
- 3 Of the listed anomalies the buildings at Nirpalani and Śendalai are reconstructions. All other vimānas in Table A are original and will be dealt with in the course of this and/or the following chapter.
- 4 For references see appendix 7, last column. Of course a temple can be older than the date mentioned in its earliest inscription. Occasionally a shrine can be younger because old slabs with inscriptions were later on incorporated in new walls.
- 5 Barret 1974, pp. 131- 33.
- 6 A striking diversity in ornamental details on the superstructures of the dvitalas among the Sapta Sthānas can be observed, especially on the śālā, on the connecting wall between the karṇakuṭī and the śālā, and on the second tala wall. In Pls. 23-28 the following variations can be noticed:  
on the śālā: at Tiruppalanam (Pl. 23) a pañjara occurs which is crowned by a huge kūdu and flanked by two round pilasters; at Tillai-sthānam (Pl. 24), Tiruchchātturai (Pl. 25) and Tirukkaṇḍiyūr (Pl. 28) a protruding block with an image and capped by a kūdu can be seen; at Tiruvēdikkudi (Pl. 25) there are two pañjaras flanking an image in between two pilasters, while the roof of the śālā is incorporated in the second tala.  
on the connecting wall: at Tiruppalanam (Pl. 23) this has no decoration whatsoever; at Tillai-sthānam (Pl. 24) it shows a pair of pañjaras; at Tiruvēdikkudi (Pl. 25) there is a small niche with a standing image; at Tiruchchātturai (Pl. 26) and Tirukkaṇḍiyūr (Pl. 28) we notice a protruding block carrying a seated image.  
on the second tala wall: at Tillai-sthānam (Pl. 24) and Tiruchchātturai (Pl. 26) we note a decoration with round pilasters; at Tiruvēdikkudi (Pl. 25) and Tirukkaṇḍiyūr (Pl. 28) two enormous dvārapālas were added.  
The application of the pañjaras and dvārapālas was almost certainly copied from the Pallavas (cf. Chandra 1975, pls. 106- 23). The round pilaster (cf. Ganeśa Ratha, Brown, pl. LX) is also a Pallava feature. Another group of temples - the three vimānas at Kambadahalli in Mysore (State) - also shows a variety in the shape of the śikhara. These experiments with ornamental details in the Sapta Sthānas can also be noticed in the illustrations provided by Balasubrahmanyam (Balasubrahmanyam 1966, pls. 107-09 and p. 241).
- 7 Balasubrahmanyam 1966, pp. 41 and 89. He classified the Śiva koyils at Panangudi and Kaliyapaṭṭi as Vijayālaya monuments and attributed that at Tirukkaṭṭalai to Āditya I.
- 8 These are the temples at Śembyan Mahādevī (SM), A.D.981 and Tiruvārūr (T), A.D.991. Other buildings of which the date is less certain lie along the coast, viz. at Tirukkaṇḍaiyūr (Td) and Nāgapaṭṭinam (N) both bearing inscriptions from the days of Rājarāja I. More vimānas with three niches in each wall are the Nāgeśvara at Kumbakonam (K) and the Koranganātha at Śrīnivāsallūr (S). The dates of these temples are ambiguous and not easy to determine,

as will appear from what follows. The monuments at Tīruviḍaimarudūr (Tr) and Tīrumalavāḍi (Tm) were renovated in A.D. 984 and 1026 respectively.

- 9) Introducing the makaratorāṇa in order to support an hypothesis based on the number of devakoṣṭhas in a paragraph dealing with the structure of a vimāna, might appear to be an unjustified deviation from our main theme. However, it is not the decorative aspect of the makaratorāṇa which is of importance but the presence of the saved-out block which the sculptor was supposed to carve out later on. This block was planned in the total concept from the start and cannot possibly have been added as an afterthought. So, when the makaratorāṇa is present, it is contemporary with the vimāna, if not, it was never intended to have a makaratorāṇa over the niche. How the development proceeded is discussed in appendix 6.
- 10) De Lippe (p. 172) and Dhaky (1971, p. 276) do not support Barrett's attribution.
- 11) Cf. Fig. 22c, p. 86, which illustrates that pañjaras and lateral niches are mutual exclusive, since they occupy in pairs the same recesses. In the case of dvitalas these elements appear in the two recesses.
- 12) Cf. Dhaky (1971, p. 276) who dated the Śaḍayar koyil in about A.D. 889 on the basis of sculptural evidence.
- 13) If they were taken from palm-leaves this could have happened centuries later.
- 14) Barrett 1974, p. 129.
- 15) Idem, p. 53.
- 16) Balasubrahmanyam 1966, p. 101. "...Mahendravarman I, ...who is said to have seized the country of the Cholas, embellished by the daughter of the Kavera (river Kaveri) whose ornaments are the forrests of paddy fields..."
- 17) Cf. Pls. 3, 5 and 31a. The figures on either side of a devakoṣṭha could well be a purely Pallava concept. The presence of these images on the shrine at Śrīnivāsanallūr seems an indication that an older Pallava temple served as example for this monument. Cf. de Lippe, p. 173.
- 18) As the temple at Tīruvaiyārū is completely built-in, no photographs showing the total height and width of its walls can be made.
- 19) Barrett 1974, pp. 50-52.
- 20) Idem, p. 52.
- 21) Balasubrahmanyam 1966, pp. 93-94.
- 22) The oldest inscription on the Vataṭīrtanātha temple at Aṇḍanallūr dated A.D. 918, mentions a certain Pudi Parāntaka as the founder of the shrine. Its construction - phrased in the past tense - seems to have been added in the record as an afterthought. The inscription in question deals extensively with a land-transaction which obviously did not run smoothly and kept the surrounding population in commotion for a large number of years. According to this record the first transaction took place already in A.D. 904. Of course, it is possible that in that year no stone walls were as yet available for an inscription commemorating this first transaction. On the other hand, A.D. 918 does not have to be the year in which the consecration

- took place. It should merely be taken as the year in which the transaction was brought to an end. Only then the whole story was recorded for posterity. This could mean that this koyil was in existence (long?) before the first transaction took place, i.e. before A.D.904.
- 23 The third cross in South Arcot on map 6 indicates the location of the shrine at Tiruvakkarai. Since this temple was renovated we do not know whether the cut-out niches are original.
- 24 Balasubrahmanyam 1966, pp.196-97.
- 25 The kumbhapañjara is an ornament on temple walls and consists of a flower-pot with an apilaster standing in it. It will be discussed in 4.3.1. of this chapter.
- 26 In the case of the Nāgeśvara at Kumbakonam the idea of scarcity of images seems obvious. Although the sculptures fit into their niches, they are clearly later additions (Pl. 30). One of the figures stands with its back towards Ardhanārī, a rather disrespectful attitude. The fact that the niches had to be carved out in the walls makes it improbable that the icons in the ardhamanḍapa are contemporary with the ardhamanḍapa itself. As these images seem to belong - stylistically - to the same group of sculptures placed in the niches of the vimāna, the latter are also not contemporary with the building. The year in which these figures were placed in the walls of this temple could be determined by establishing which records were partly obliterated by the niches in the ardhamanḍapa wall, or - if the scribe showed awareness of the presence of the cut-out niches - from which years these inscriptions date.
- 27 The fact that the images of Viṣṇu and Brahmā are carved out on the stones with which the temple is constructed, indicates that the niche of Liṅgodbhava was planned right from the start. So, the sculpture cannot be a replacement of an earlier image of Ardhanārī or Viṣṇu. Cf. Gopinatha Rao, Vol. II, pp. 107-08, pl. XIII.
- 28 Balasubrahmanyam 1966, p.115.
- 29 The crescent is placed high up on the wall. The makaratoraṇa could well have been damaged in case the roof had collapsed. Replacement of the cracked or broken stone by a new one would then have been the normal procedure. This could have been part of the repairs mentioned by Balasubrahmanyam. Of course, another possibility is that the Naṭarāja in this panel is indeed the first ever designed. But who can establish beyond doubt when exactly a religious concept is translated into stone for the first time?
- 30 In chapter two the deficiencies of his typology were fully discussed (2.3.3.).
- 31 Barrett 1974, p. 105.
- 32 Idem, p. 135 and fig. IIe.
- 33 It is not likely that the architect ignored the obvious enthusiasm of the village population with regard to the construction of their koyil (at Tiruvilakkudi) and spoiled their building right away by cutting holes in the walls of the building still under construction.
- 34 A pulli is a small arch over a syllabal sign. It is considered to be a palaeographical characteristic of the 9th century.
- 35 Balasubrahmanyam (1975, p. 128) believed that the temple at Tirumaṅgalam



actually dates from the time of Āditya I. Here again, he based himself on the presence of a number of special forms of Śiva, placed in the niches as detached sculptures. It concerns the figures of Hariharar and Bhikshatar (sic) which are also found in the monuments at Tiruveṇṇambūr and Goburapatti, and at Tiruvamattūr and Virālūr respectively. Of these four shrines only the last can be securely dated before A.D. 900. As against this, the oldest record on the temple at Tirumaṅgalam dates from the 5th regnal year of Rājārāja I, i.e. A.D. 990.

- 36) Inscriptions issued in the name of Kṛṣṇa III as well as Parāntaka I were discovered on temples throughout the South Arcot District. Parāntaka had his headquarters in the southern part of the district. Between A.D. 935-43 he had shrines raised at Erumbūr, Tirunāmanallūr and Grāmam. The first two vimānas represent the pure Coḷa type I-2-a, the third belongs to Coḷa type II-2-b.
- 37) Balasubrahmanyam 1975, pls. 398-99.
- 38) Chandra 1975, pl. 123.
- 39) Soundara 1975, pp. 299-300; pp. 288-89 and pl. 151.
- 40) Cf. also Dhaky 1971, p. 272, where he compared the Neman images with those at Nārttāmalai.
- 41) Balasubrahmanyam described this building as an ekatala with a round śikhara, but the vimāna has two talas and is crowned by a square śikhara.
- 42) By drawing up criteria which allow for a "first phase" of more than 60 years, Barrett created problems for himself. For, when the final objective is to show a development in stylistic features it should be possible to distinguish at least a few of these features in temples built in ca.A.D. 890, 920 and 940 respectively. As this is not the case we have to go by the "feelings" of the author.
- 43) Balasubrahmanyam 1966, p. 145; Barrett 1974, p. 85.
- 44) In the long run Agastya becomes a manifestation of Śiva.
- 45) Barrett 1974, pp. 107, 135 and 137.
- 46) Balasubrahmanyam 1971, pl. 9.
- 47) The size of the vimānas varies between 4 and 6m<sup>2</sup>, the length of the ardhamandapas varies between 3-6m.
- 48) Barrett 1974, pp. 134-35, 137. However, we should like to point out that his typology does not represent the actual situation. In his drawings the ardhamandapa is incorrectly shown as throughout slightly more narrow than the vimāna. In reality his type II is always as wide as the vimāna which in fact, gives these temples such a balanced appearance. Furthermore, ventilation holes should not be considered equally important as niches, because they do not belong to the original design of an ardhamandapa. This implies that the subtypes Ic and Ib.1 which Barrett distinguished on the basis of these holes (our Fig. 14), do not occur in our classification and that the shrines belonging to his subtypes IId and IIe, should, in fact, be considered as examples of his IIb category, because blind niches should be dealt with in a different way.
- 49) Balasubrahmanyam 1971, pp. 207-08.
- 50) Balasubrahmanyam 1975, p. 406.
- 51) Balasubrahmanyam 1971, p. 83.

Balasubrahmanyam 1975, p. 148.

Balasubrahmanyam 1971, pp. 26-27; Barrett 1974, p. 74.

Balasubrahmanyam 1975, pp. 119-21.

Barrett 1974, p. 135.

The temple at Tirumanancheri attributed by Balasubrahmanyam to the days of Śaṅkya Mahādevī, was not included in our survey. On paying a visit to this monument it appeared to be a completely new building. Its layout however, could well have been copied from the original shrine, since it still shows the characteristic 1-B-3 combination.

Balasubrahmanyam 1975, pp. 14-15 and 18.

The calculation of the complete building is as follows:

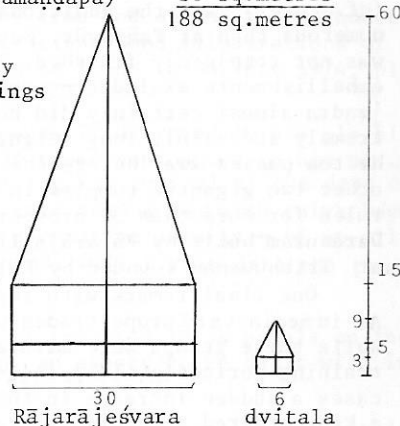
For the Rājarājesvara

4 x (15 x 30 sq. metres wall surface of the vimāna including the 5 metres high base)	1800 sq. metres
4 x (15 x ca. 47,4 sq. metres surface superstructure)	2844 sq. metres
2 x (10 x 25 sq. metres wall surface ardhamandapa)	500 sq. metres
	<hr/> 5144 sq. metres

For an average small dvitala

4 x (3 x 6 sq. metres wall surface of the vimāna including the base)	72 sq. metres
4 x (3 x 6,6 sq. metres wall surface superstructure)	80 sq. metres
2 x (3 x 6 sq. metres wall surface ardhamandapa)	36 sq. metres
	<hr/> 188 sq. metres

Of course, these measurements are merely approximations. Several subsidiary buildings and details are not accounted for: the two large gopuras, which are both taller than an ordinary dvitala, the inside walls of the vimāna, since it belongs to the sāndhāra class, the immense volume of the platform measuring ca. 330 x 55 sq. metres, the length of the prakāra walls enclosing twice an area of ca. 240 x 122 sq. metres, eight shrines for the dikpālas and eight for the aṣṭaparivāradevatās most of them gone.



One may wonder how Rājarāja I collected sufficient funds to finance such an enterprise even before he became king. According to Sastri (1966, pp. 180-81) the successful campaigns against the Pāṇḍya and Keraḷa kingdoms (comprising India south of the Kāverī-Coleroon) and against Śrī Lanka took place in the first five years of his reign. In A.D. 992 he fought his first victorious battle against the Cāḷukyas. This was apparently the (anticipated) consequence of his invasion of the Eastern Cāḷukyan tracts some years earlier. In A.D. 1007 Rājendra I was ordered by his father to invade the Western Cāḷukya territory, which he plundered slaughtering women, children and brahmins. From then onwards the Coḷa empire extended its influence in all directions including Malaya and Indonesia (Sastri 1966, pp. 202-03). Since the victories of Rājarāja I can only be inferred from his undated, but in



other respects detailed epithets running along the base of his own monument, we do not really know whether he started his campaigns only after he ascended the throne. We do know that he himself ordered his son to fight his arch-enemies, the Cālukyas, seven years before his death and that he made him joint ruler two years before he passed away. So it is quite possible that Uttama Coḷa in the last years of his reign also entrusted the military affairs of his kingdom to his nephew Arumoli, the future Rājarāja I. In the same way, Rājarāja I could have laid the base of his political and financial power while he was still crown prince. This seems all the more likely since Arumoli was probably a (too?) young crown prince in A.D. 969 when he promised his uncle — who had murdered his father Āditya II according to a record from the reign of Rājendra I — to abstain from the throne till he, Uttama Coḷa, had died. This event occurred seventeen years later.

If we assume this course of affairs, then a construction period of 30 years for the Rājarājeśvara is acceptable, since Rājarāja I must have had the financial means right from the start of his reign. The building was not completely finished, for there are many plain blocks on either side of the numerous niches which were meant to represent all kinds of attendants but never reached that state. We believe that the sculptors were interrupted by the king's death and left their work unfinished. Fortunately Rājendra I had shifted his capital from Tañjāvūr to Gaṅgaikoṇḍaśālapuram — perhaps from the time he was joint ruler. So, the artists and craftsmen were ordered to this new capital to erect a more or less similar temple. This second, large shrine with only eight talas is not as impressive as that of his father, for it is not as tall and has a curvilinear profile (cf. cover) and the additional buildings in its compound are less numerous than at Tañjāvūr. Nevertheless, the Gaṅgaikoṇḍaśāleśvara was not completely finished. This implies that its construction — the embellishments excluded — probably also took roughly 30 years. As Rājendra almost certainly did not have financial problems during his extremely successful, long reign, lasting 32 years, we can conclude that he too passed away before the sthāpatis had completed their work. (The other two gigantic temples in the delta were raised by kings who also ruled for more than 30 prosperous years, viz. the Airavateśvara at Darasuram built by Rājarāja II — A.D. 1146-73 — and the Kampahareśvara at Tribhuvanam founded by Kulottuṅga III — A.D. 1178-1218).

One final remark with regard to the supposed long construction period. As in mediaeval Europe trades were restricted to certain groups of persons. While these groups were maintained in Europe by way of severe selection or training periods (guilds), in India this took place by birth (casts). In both cases a sudden increase in the number of craftsmen is hardly possible when a king ordered a temple complex which was ca. 50 times larger than the customary shrines. On the other hand, a sudden decrease can be explained as a result of deteriorated circumstances. Epidemics, severe draughts or floods could have decimated the number of artisans and — more important — their families while continuous warfare could have limited the financial means of the founders.

- 60) According to his own eloquent inscription Rājarāja must have had a perfect talent in finding people willing to perform the numerous temple duties and to organize the maintenance of the buildings. Four treasurers, 174 brahmācāryas, seven accountants and nine subaccountants were provided by 144 villages, all in the province of Coḷamaṇḍalam. They had to be given a specified number of kalams of paddy per year. Some 131 villages were ordered to provide 143 watchmen for the temple. They all received 100 kalams of paddy per year. More than 400 devadāsīs were transferred from 91 shrines all over the empire and settled in two newly built streets. They were also gi-

ven an allowance of upto 100 kalams of paddy per year — which is not very much! — the net produce of one veli of land (26.755 sq. metres). If one of them died her relations had to provide a new devadāsī. Finally, 216 male servants were enlisted such as singers, musicians, dancers, a superintending goldsmith, holders of the sacred parasol, tailors, jewel-stitchers, water-carriers and so on. In the same record the chief architect and the two assistant architects are specifically mentioned as the recipients of an unspecified remuneration.

In spite of this extremely detailed list of people connected to the temple, the men who actually built this koyil with their bare hands are passed over in complete silence. This is all the more stunning as even the number of cows per lamp is specified. Rājarāja himself made extensive grants to shepherds in the neighbourhood of Tañjāvūr for maintaining 2,832 cows, 1,644 ewes and 30 she-buffaloes in order to receive enough ghee to burn 160 lamps in the temple compound (Balasubrahmanyam 1975, pp. 71-82). Interpreting Balasubrahmanyam correctly we can infer that the setting up of some 66 metal images — specified accurately by name, weight and kind of metals used — and the organisation of the temple services took six years, i.e. from A.D. 1008 till his death in A.D. 1014. This implies that a large part of the building must have been ready by A.D. 1008.

Balasubrahmanyam 1975, pp. 332-33, nos. 56, 61-64. Cf. appendix 11, nos. 30-37.

Idem, pp. 6 and 14. Cf. Volwahn, p. 180, where the time consuming problem of the transportation of the grīvā platform is illustrated.

In the following discussion we shall refer time and again, to reproductions in Barrett's and Balasubrahmanyam's publications. Good illustrations of the vimāna at Tiruvārūr and its sculptures can be found in Barrett 1974, pls. 77-79 and in Balasubrahmanyam 1966, pls. 262-70.

Balasubrahmanyam 1975, pls. 42-52. The images illustrated in his pls. 51(a-c) belong to a different — later — style than those reproduced in his pls. 47-50, which represent the standard set of figures typical of the days of Uṭṭama Coḷa. As the pilasters and makaratorṇas are covered with thick layers of plaster nothing can be said about the decorative details — if at all present. The kāl profiles, on the other hand, will firmly date the temples as we shall demonstrate in chapter four.

Cf. Barrett 1974, pl. 55. Note the munai or inverted lotus petals on the pilasters of the central niche projection, an aspect to be dealt with in chapter four. Balasubrahmanyam 1966, pl. 83.

Cf. Balasubrahmanyam 1975, pls. 63-66. The temple is completely built in, which explains the awkward quality of the reproductions. Pl. 66 shows that the decoration on the walls of this shrine is quite good. In fact, on visiting this monument we discovered that its pilasters are often superbly carved.

In two respects the shrine resembles that at Tiruppugalūr (no. 7). In the first place every pilaster is topped by a kamala with munai or inverted lotus petals. Secondly, every corner palagai carries a nāṭṭiya-peṇ. This combination of nāṭṭiya-peṇs and munai occurs only on these two monuments. All other koyils in the delta built after A.D. 969 have either munai or nāṭṭiya-peṇs or no decoration of this kind at all. This aspect will be discussed in the next chapter. Cf. Balasubrahmanyam 1971, pp. 177-78.

- 68) Cf. Barrett 1974, pls. 25-27 and 80(a)-82; Balasubrahmanyam 1971, pls. 43-50. Note the difference between the decoration of the pilasters and kūḍus at Kuttālam as compared with those at Tiruvādūtūrai. At Kuttālam the slender, beautifully carved pilasters stand in a square block studded with lotus buds on its four corners and have a median band of garlands; the kūḍus are placed ca. 2 cms. above the fascia of the pañjara kapota — a feature also found in the koyils at Kīraṇūr, Tirunāgeśvara, Vriddāchalam and Manampādi. At Tiruvādūtūrai the pilasters are relatively short and heavy, while their decoration is superficial. The kūḍus form a perfect circle across the fascia.
- 69) On comparing pls. 80(a) and 48 (Barrett 1974) this statement proves to be incorrect. The pilasters of the shrine at Kōṇērīrājavuram and their decorative details show closer affinity to those at Tiruvādūtūrai (Barrett 1974, pl. 25), than to those at Kuttālam. In our opinion this indicates that the monument at Kōṇērīrājavuram is one of the first — if not the very first — product(s) of Śembyan Mahādevī's atelier. The outlines of a garland and nāṭṭiya-pens are only slightly cut out on this temple, whereas at Kuttālam the high relief of the same type of ornaments demonstrates an experienced hand.
- 70) Cf. our Pl. 63b with Barrett 1974, pl. 80(a).
- 71) Balasubrahmanyam 1971, p. 219.
- 72) The temple at Ramanātha Kōyil was built ca. A.D. 1019 as a paḷlipaḍai over the mortal remains of a certain Panchavan Mahādevī, probably one of the queens of Rājarāja I (Balasubrahmanyam 1975, pp. 270-71). The building activities at Gaṅgaikōṇḍaḷapuram may have started ca. A.D. 1012, although the earliest reference to the city dates only from A.D. 1029 (Balasubrahmanyam 1971, p. 241).
- 73) Barrett 1974, pls. 85-86.
- 74) Cf., for instance, the carefully carved garlands, nāṭṭiya-pens, makaratorṇas and kapotas on the Naltunai Īśvara (our Pls. 60a-b and Barrett's pls. 28-31a, 34a-b, 1974) with those at:  
 - Ānangūr (A.D. 980-85), Barrett 1974, pl. 51;  
 - Kuttālam (A.D. 990), Barrett 1974, pl. 80(a);  
 - Tiruvaiyārū (A.D. 1000-1006), Barrett 1974, p. 86;  
 - Tañjāvūr (A.D. 985-1014), Balasubrahmanyam 1975, p. 12 (excellent quality of garlands), pls. 13 and 15 (beautifully executed makaratorṇas and kumbhapañjaras), pl. 19 (unfinished decorative details); pl. 22 does not represent a part of the Rājarājeśvara, but of the more recent Sumbrahmanyā temple in the same compound.  
 - Tirumangalam (A.D. 990-1000), our Pl. 50.  
 - Goburapatti (A.D. 990-1000), our Pl. 49.  
 - Gaṅgaikōṇḍaḷapuram (A.D. 1012 ? -1044 ?), Balasubrahmanyam 1975, p. 205. In the upper part of the first tala the kumbhapañjaras are replaced by niches, thus creating extra room for even more images than on the double-storeyed walls of the Rājarājeśvara at Tañjāvūr (pl. 7); pls. 210-24 illustrate that the quality of the sculptures is good, while that of the pilasters is not.
- 75) Cf. Kuttālam, Barrett 1974, pl. 80(a), where the kūḍus on the pañjara-kapota are also placed slightly higher up on the fascia.
- 76) Barrett 1974, pl. 18(b).
- 77) Balasubrahmanyam 1966, p. 190.



## Chapter four

### The development of individual components of a vimāna in the Coḷamaṇḍalam between A.D. 850-1044

#### Introduction

From the discussion in the previous chapter it became clear that the structural aspects of a monument can only be used for its dating on two conditions:

1. The number of temples showing the same element should be reasonably large, because only in that case uniform regions can be demarcated.
2. In the course of time the population of a specific area must have expanded or else must have developed an ever increasing number of socio-religious functions inherent to temples, because only then it is likely that the size of these buildings would have been adapted.

These two conditions are applicable to the Kāverī delta and its population, but in the outer provinces this is not the case, for there we find only a limited number of monuments and their size is small. It is, however, possible to date these koyils when their decorative features are taken into consideration.

In this chapter we shall try to find solutions for the problem how to date these Early Coḷa buildings. Apart from the shrines situated in the districts South Arcot, Tiruchirappalli, North Arcot and Chingleput, many temples located in the delta will be discussed as well. These are the Sapta Sthānas and the group of koyils built after A.D. 970, for they appeared to show such an extreme variation in their structural aspects that we were forced to study their ornamentation.

Contrary to the structural aspects there is no coercive order in which the more decorative features can be studied. The only consideration is that some



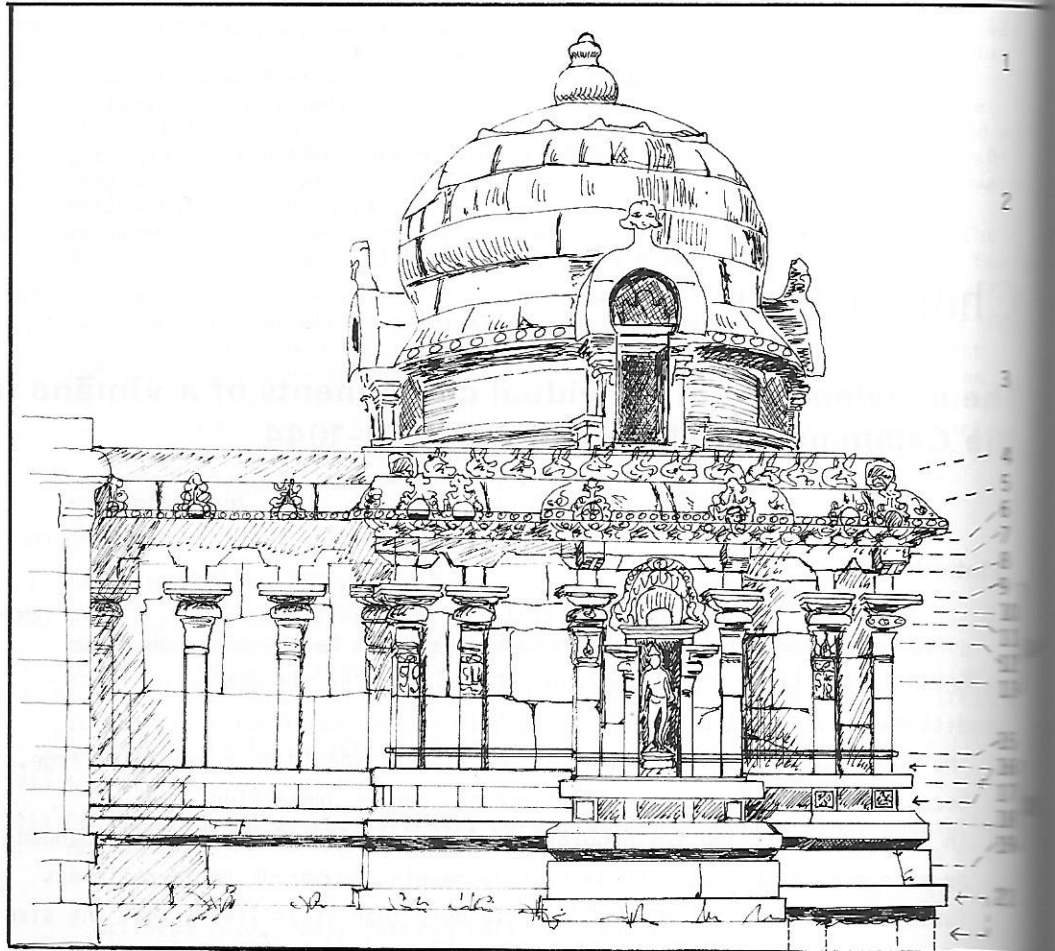


Fig. 36. Individual components and their position on an Early Coḷa koyil.

- |  |           |                       |
|--|-----------|-----------------------|
| 1. stūpī   |           |                       |
| 2. śikhara with kūḍus and śiṃhamukhas                                    |           |                       |
| 3. grīvā with devakoṣṭhas  |           |                       |
| 4. vyāli frieze  |           |                       |
| 5. kapota with different types of kūḍu and fascia with border of circles |           |                       |
| 6. bhūtagaṇa frieze  |           |                       |
| 7. uttira  |           |                       |
| 8. podigai   |           |                       |
| 9. palagai   |           |                       |
| 10. kamala   |           |                       |
| 11. kumbha   | } 14. kāl | 15. vari              |
| 12. kalaśa   |           | 16. kaṇṭha            |
| 13. mālāsthāna   |           | 17. paṭṭikā           |
|  |           | 18. kumuda            |
|  |           | 19. jagatī            |
|  |           | 20. adhiṣṭhāna        |
|  |           | 21. upāna or upapīṭha |

(Drawing based on a photograph of the Bhūmīśvara at Virālūr).

original elements are liable to disappear due to renovation — as is often the case with the śikhara — or due to a rise in the level of the pavement surrounding most shrines. This is why the presence of an upāna is often hard to establish. Consequently, maps showing the distribution-pattern of variants of the śikhara or upāna are incomplete and therefore do not provide a reliable picture. We shall, therefore, start our discussion with the adhiṣṭhāna, followed by a review of the vari. Nevertheless, a small paragraph on the upāna will be added, whenever the upāna is visible, we can learn something about its application, its shape and its development (Fig. 36, nos. 16-21).

The subject of the subsequent paragraph is the kāl or shaft. This element is part of the wall and its function is purely decorative. Its delicately sculptured motifs or garlands, dancing figures and playful animals have often been plastered so many times that their original beauty can only be guessed at. Its contour, on the other hand, cannot be hidden that way. So, this aspect of the kāl will be studied (Fig. 36, nos. 9-14).

Another important element of a temple is its roof. Usually it is considered to be an essential part of the structural design. We, on the other hand, are merely interested in its outward appearance: its profile, the way the grīvā look on its form and — in case we are dealing with a dvitāla — the differentiation in the hāra and the second tāla. As said above, these aspects have more often than not been spoiled or destroyed. The only complete set of original roofs are found on temples located in the Tiruchirappalli District. Consequently, only monuments situated in this district will be discussed in the paragraph dealing with the śikhara (Fig. 21, nos. 5-7, Fig. 36, nos. 1-3).

We shall conclude this chapter with the most important criterion: the podigai or corbel. This does not change during the Early Coḷa period — as defined by others — because it is characterized by merely one variant. It is not known, however, when exactly the new shapes at the beginning and the end of this long period were created. Therefore, our discussion of the Early Coḷa podigai cannot reveal the chronological sequence of the Early Coḷa temples, but it will help to settle the problem of when exactly the "pre-Early Coḷa period" turned into the Early Coḷa period and how long this period lasted. The shrines discussed in the paragraph dealing with the podigai are in the first place the Sapta Sthānas, for on their walls the Early Coḷa corbel received its definite shape, and secondly, the buildings of the period following immediately after the completion of the Rājarājeśvara at Tañjāvūr, where the new podigai was introduced (cf. Fig. 57, p. 300 and Fig. 36, no. 8).

Beside the decorative parts just mentioned we shall pay attention to the



distribution-pattern of some other ornaments which were, from the start, incorporated in the design of a wall, viz. the *idaḷ* — looking like exaggerated lotus petals appearing from under the *palagai* — the *nāṭṭya-peṇs* and the rearing lions on either side of a *podigai* and standing on the *palagais*, the sculptures on either side of a *devakoṣṭha* and the panels under the pilaster in case they are applied under each and every *kāl* of the *vimāna*. These decorative details will not be the subject of a separate paragraph, but their distribution-pattern can be of help in the discussion of the *kāl*.

## 2. Composition of the *adhiṣṭhāna*

### 2.1. Typology.

The *adhiṣṭhāna* is the platform on which the *garbhagr̥ha* stands. It consists of four parts. These are from the bottom upwards the *jagatī*, the *kumuda*, the *kaṇṭha* and the *paṭṭikā* or *akrapaṭṭiyaḷ*. A second *kaṇṭha* between the *paṭṭikā* and the *vari*, part of the wall decoration, does not belong to the base. The *kumuda* and the *paṭṭikā* can be piped both at their lower and at their upper rims with a small *padmabandha*, the *jagatī* only at its upper rim, for otherwise the impression might be created that the *vimāna* rests unstable on its *upāna*, i.e. the plinth. This plinth, usually a granite plate or a layer of bricks no thicker than a few centimetres, is an independent part of the building. During the Pallava period it often had several mouldings.

Barrett's typology suggested that both the *vari* and the *upāna* are parts of the *adhiṣṭhāna*.<sup>1)</sup> However, as this is not the case, our train of thought is rather different. Yet, a remark regarding temple bases may explain Barrett's mistake. For the function of the *adhiṣṭhāna* as a base of the *garbhagr̥ha* had already been lost in the oldest Early Coḷa shrines. This can be deduced from the fact that the *praṇāla* — the spout which drains the *abhiṣeka* water through the northern wall — may occur in every moulding of the base, even in the *jagatī*, depending on the floor-level inside the sanctum. The temple at Tiruviḍaimarudūr, renovated in the present century, has its *praṇāla* even in the *upāna*! Apparently, the original platform on which the *yonī* and the *liṅga* stand is neither raised nor lowered when renovation takes place. This implies that the *sthāpatis* could only apply the mouldings of the *adhiṣṭhāna* with or without an *upāna* or *vari* around the given floor. If the space between the ground-level and the *yonī* was too narrow for the four mouldings of the base, then the parts

above the floor of the sanctum, automatically became mere decorations without having a carrying function. The pure concept of the adhiṣṭhāna as a true base was only applied in those temples which are located in a place where no Śiva image had ever stood before. In such cases the praṇāla was placed in or just above the paṭṭikā.

In appendix 5 aspect 3 shows some of the jagatī variations of which only variants 3 and 4 — or a combination of 3 and 4 — occur on Coḷa temples; the other variants were invented and applied by the Pallavas and Cāḷukyas. This implies that the Coḷa monuments can be subdivided into two groups: group I, consisting of temples with a straight jagatī; group II, consisting of temples with an ogeed jagatī, decorated with lotus petals.

If a shrine shows both types at the bottom of its base, i.e. under the vimāna and the ardhamāṇḍapa, it is indicated as I/II.

Aspect 4 illustrates the seven variations in the shape of the kumuda. The flattened versions 5 and 6 are contributions of the Cāḷukyas; no. 3, — the kumuda with vertical flutes — is a true Pallava type which was never applied outside the Palar region. The kumuda commonly found on the base of Early Coḷa temples has, therefore, either three facets (1) or a round profile (2) — shapes which were both copied from Pallava shrines. The Coḷa artists, however, omitted the complicated vertical flutes on the rounded kumuda and lined it with only one or two small lotus-borders (4), so there are only two types of the kumuda: type A: the kumuda with three facets;

type B: the rounded kumuda, with a lotus petal moulding.

In some cases the kumuda of the garbhagrha and that of the ardhamāṇḍapa belong to different types. This is indicated as A/B.

Aspect 6 represents the variations of the moulding above the kumuda. The first variant is the vyāli frieze (1), the second a kaṇṭha with or without small panels under the pilasters (2-5) or an element which indicates the place of the wooden rafters, which on temples built of brick and wood, used to protrude on that place under the paṭṭikā (6 and 8), while variant 7, the rosette, can be considered a petrified projection which had already lost its function. Three variants of the kaṇṭha can be distinguished:

variant 1: the vyāli kaṇṭha;

variant 2: the normal, straight kaṇṭha;

variant 3: the kaṇṭha with "mock-rafters".

Finally, under aspect 7 several variations of the paṭṭikā are represented

Fig. 37a. Step one:

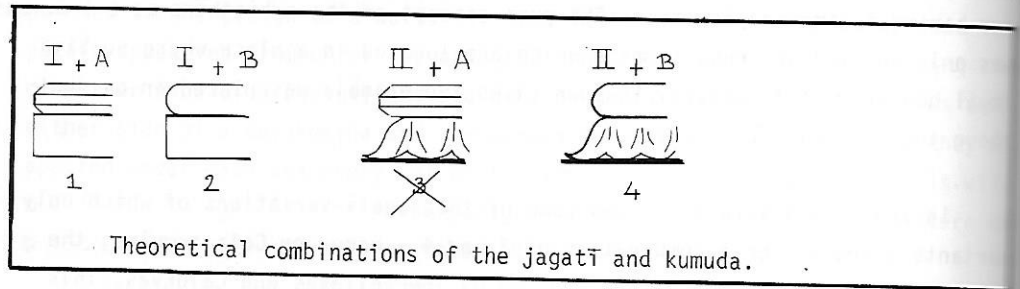


Fig. 37b. Step two:

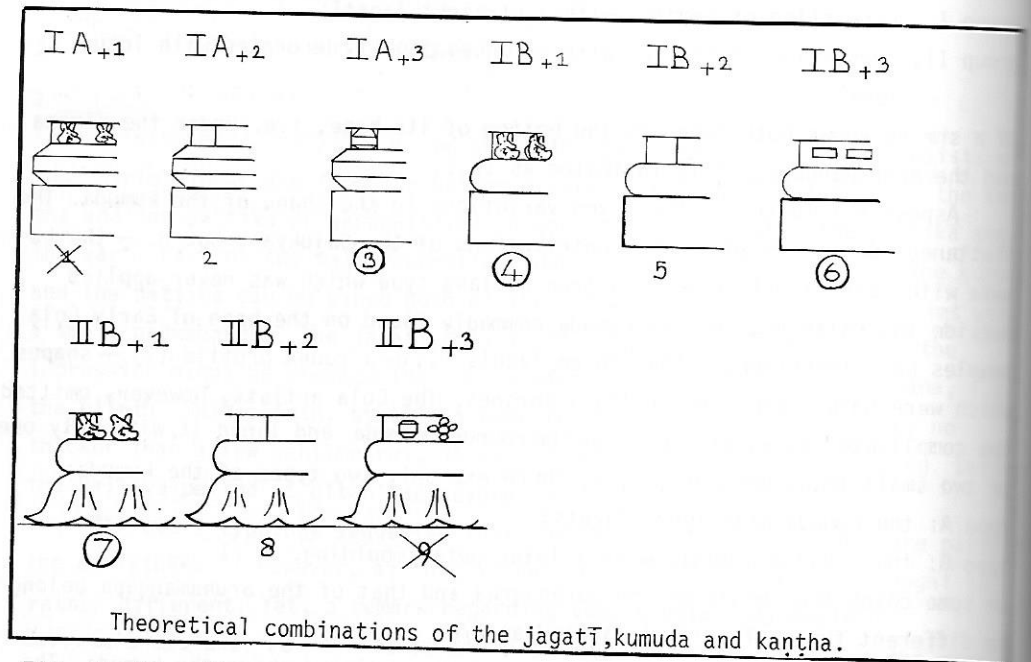
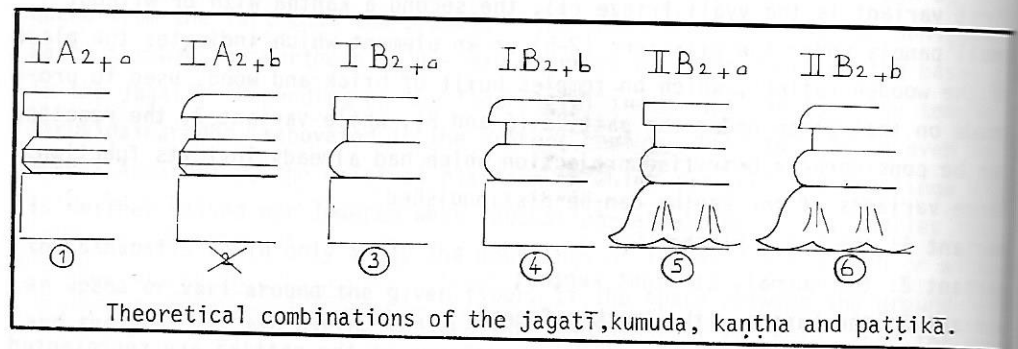


Fig. 37c. Step three:



of which there are basically two types:

type a: the rectangular paṭṭikā (1-3);

type b: the paṭṭikā transformed into a kapota (4-7). The paṭṭikā is decorated with one or two padmabandhas (3), the kapota with vyālis (4) and/or kūḍus (5 and 6), or it is left plain (7).

The adhiṣṭhāna is a unit, notwithstanding its often differentiated composition. A typology of this temple element will, therefore, have to consist of all theoretical combinations of the four types and their variants distinguished above. If we proceed in the same way as the sthāpatis and place layer upon layer, then the following clusters can be expected step by step (see Figs. 37a-c).

Step one (Fig. 37a): a kumuda is placed on top of a jagatī. Of the four possible combinations IIA occurs only with a less pronounced curved profile on Pallava monuments, for instance on the Shore temple and the Olakaneśvara at Māmallapuram (Pls. 4-5). The elegance of the large, ogeed lotus jagatī obviously did not harmonize with the massive three-faceted kumuda.

Step two (Fig. 37b): a kaṇṭha is placed on top of kumuda and jagatī. From the three remaining possibilities of step one, nine new combinations can be deduced. The first and last shown in this figure, were never applied by the Early Coḷas. The combinations 3 and 6 were not used by the Coḷas. As they represent complete bases, a paṭṭikā over the petrified rafter-tops was really superfluous. The combinations 4 and 7 are also complete adhiṣṭhānas, for a kaṇṭha never appears above the vyāli frieze — and rightly so, for it would crush this lively row of animals.

Step three (Fig. 37c): a paṭṭikā or kapota is placed on top of the kaṇṭha. From the three remaining possibilities of step two, six new combinations can be deduced. The second possibility occurs only once, viz. at Peruṅguḷam in the Tirunelveli District. All others represent complete adhiṣṭhānas.

Summarizing, seven types of adhiṣṭhānas are found on Early Coḷa monuments. These are: IB1, IIB1, IA2a, IB2a, IB2b, IIB2a and IIB2b.

At this stage it is not possible to establish a chronological sequence for these seven variants. As the basic elements had already been devised by the Cholas and Pallavas, the contribution of the Early Coḷas consisted merely of new and enchanting combinations of well-known aspects. This is nicely illustrated in their earliest group of shrines, viz. the Sapta Sthānas and some other temples constructed before the end of the 9th century, in which they tried out these mixed forms.



## 2.2. Distribution of the adhiṣṭhāna variants; determination and description of uniform regions

The areas in which the straight and the ogeed jagatī occur under a straight or rounded kumuda are indicated in map 7. The distribution-pattern of these variants is such that only IA and IB regions can be demarcated. The Palar area and the Tiruchirappalli District are typical IA regions, whereas the delta is a IB area. Along the borders of the Kāverī types IA and IB occur both. In South Arcot we see two separate IA areas as well as two IB zones. The elegant lotus-jagatī is not common in the Palar area; only two monuments have this type of base, viz. that at Kūḷambandal (K) and a shrine rebuilt from its vyāli frieze upwards, at Uttaramallūr (U).<sup>2)</sup> Both villages are located south of the Palar and seem to link up topographically with the Early Coḷa temples in the northeastern part of South Arcot, viz. those at Dadapuram (D), Kīḷiyanūr (Kī) and Tirunāmanallūr (T) and the Viṣṇu Koyil somewhat further to the south at Tribhuvana (Tr) dating from the first quarter of the 11th century. At Dadapuram, the ogeed jagatī was only applied under the pañjaras (Pl. 52a). However, even in the Kāverī delta itself the lotus jagatī is not a particularly dominant phenomenon. There are only 21 instances of it in the delta, including the monuments in which two variants were applied, and two along the borders of the undivided Kāverī. The Mūvar Koyil at Koḍumbāḷūr (Ko) is a solitary case in the large Irukkuveḷ area, proving that the lotus base cannot have been a contribution of the architects of these people.

Around Tañjāvūr we find a concentration of temples standing on a IIB base. However, three of the seven monuments which determine this "region" are situated in the Pañcanādīśvara complex at Tiruvaīyāṟū and consequently represent two phases, i.e. the style of Āditya I and that of Rājaraḷa I. The others are located at Tirukkaṇḍiyūr (Tk), Tirumalavāḍi (Tv) and Kīlaiyūr (K). At Tirukkaṇḍiyūr the base under the ardhamaṇḍapa is different from that under the vi-māna. The twin shrines at Kīlaiyūr were buried up to the kumuda when we paid a visit to the site. However, the adhiṣṭhāna of the Coḷeśvara was recently excavated as is illustrated in de Lippe's book.<sup>3)</sup> The entire building stands on a IIB adhiṣṭhāna and we assume that the same applies to the Agastyeśvara in spite of basic differences in their superstructures (cf. pp. 288-90).

All other temples with an ogeed jagatī are situated in the central part of the delta and date from the time of Śembyan Mahādevī or later. Their locations do not allow the clear demarcation of a region, because IB variants were frequently applied in the same area and at the same time (appendix 12).

The location of the different variations of the layers above the kumuda

is indicated on map 8. All variants appear to be evenly distributed over Tamil Nadu, so we have to consider them in combination with the underlying mouldings.

Temples with a vyāli frieze are naturally those which occur as IIB on map 7. In combination with the IIB mouldings they form the IIB1 group. Because no regions could be demarcated for the IIB combination, a distribution-pattern for the occurrence of IIB1 cannot be established either (map 9). This is also the case with the IB1 base which is spread over a wide area (map 9). It occurs in the extreme west at Śrīnivāsanallūr (S), more to the east at Aḷlūr (Pančānāśvara, A), in the two Muttaraiyar koyils at Kiranūr (K) and Śendalai (S), in the southeastern part of the delta at Tirukkoḷikkāḍu (Tk), in the southeastern tip of the delta at Vēdāraṇyam (V), four times in the centre of the delta at Kūmanātha Kōyil (RK), Mahārājapuram (M), Tiruviḷakkuḍi (Tv) and under the vimāna at Tirunaṇṇaiyūr (Tn), in the apex of the delta at Tirukkāṭṭuppaḷḷi (Tp) and finally, in the north under the Amman shrine at Gaṅgaikoṇḍaḷapuram (G). Outside the Kāverī delta this type of base occurs six times, viz. at Kīlūr (Ki), Tirukkoyilūr (Kk) and Tiṇḍivanam (Ti), all three in South Arcot, and in North Arcot under the monuments at Tiruppachchiyūr (Tp), Takkōlam (Ta) and Kāverīpakkam (Ka). The last two shrines have the fluted version. It should be added, though, that the "monument" at Kāverīpakkam consists of a few fragments only, deposited in the Government Museum at Madras.

Adhiṣṭhānas with a kapota (b) instead of a straight paṭṭikā (a) occur exclusively north of the river Kāverī (map 8). They are located at regular intervals from west to east at Tiruchchennampūṇḍi, Gandaradittam, Puḷḷamaṅgai, Tiruppurambyam, Gōvīndaputtūr and Kuttālam. Outside the delta this base was applied under the monuments at Vriddhāchalam (V), Dadapuram (D), Madagadipattu (M), Tirumullaivāyil (Tm), and Tiruvorriyūr (Tv), at the last two under the ardhamāṇḍapa only. A kapota carrying a vyāli frieze indicated as b<sup>-</sup> in appendices 12-15, is a feature which occurs on the two oldest monuments of this group of IB2b types, viz. at Tiruchchennampūṇḍi and Puḷḷamaṅgai. The practice to decorate a kapota with kūḍus (b<sup>+</sup>) becomes customary around A.D. 980, for this design is only found at Gōvīndaputtūr, Vriddhāchalam, Kuttālam, Tirumullaivāyil and Tiruvorriyūr. The other shrines of the kapota group (b) have both details on and/or above their kapota (b<sup>+</sup>).

Except the koyils at the eleven villages just mentioned, all other monuments have a straight paṭṭikā. As indicated on map 8, the application of the single or double string of lotus-petals (a' or a'' respectively in appendices 12-15), is almost entirely limited to the central part of the delta. The only examples of this bandha outside the delta occur on the vimānas at Tirumullaivā-



yil (Im) and Tiruvorriyūr (Tv), on the complete building at Jambai, on the Brahmeśvara at Brahmadēśam (South Arcot) and on the Late Coḷa koyil at Nārttāmalai. As such, it appears to be a fringe phenomenon.

Combining the data on maps 8 and 9 we see that the adhiṣṭhāna with a kapota is always associated with the IB2 layer-combination. The shrine at Gōvīndaputtūr forms the only exception, for here we have the truly unique IIB2b base. It is also evident that the undecorated paṭṭikā (a) belongs to the stark IA2a base. The paṭṭikā set in a padmabandha (a' or a'') generally occurs over the IB2 and IIB2 combinations.

Anomalies in the distribution-patterns on map 9 showing complete adhiṣṭhānas are hard to find, for all types are equally spread over the districts. Irregularities are, however, observed on map 7, viz. the IB/IIB components in the locational context of IA(2a). These anomalies are mentioned in Table C. In this list we have also included the shrines at Rāmanātha Kōyil, Mahārājapuram, Tirunaṟaiyūr and the Wanyaganātha at Tiruvārūr, because they show up as deviations in the only real "region" on map 9, i.e. the (I)IB2a tract in the centre of the delta. We shall return to Table C once and again, for the temples in question display aberrations in other respects as well.

Table C.  
Anomalies in the distribution-patterns in maps 7 and 9.

Name of the village	adhiṣṭhāna	locational context	District
Koḍumbāḷūr(Ko),	IIB1	} IA2a	Tri.
Kiranūr(K),	IB1		
Nārttāmalai(Melakkadambūr,N)	IB2a"		
Śendalai(S)	IB3		Tanj.
Tribhuvana(Tr)	IIB1	} IA2a	S.A.
Madagadipattu(M)	IB2b"		
Tennēri (niche) (T)	IB2a	IA2a	N.A.
Rāmanātha Kōyil(RK)	IB1	} IB2a IIB2a	Tanj.
Mahārājapuram(fringe) (M)	IB1		
Tirunaṟaiyūr(Tn)	IB1		
	IIB1		
Tiruvārūr(Wan) (T)	IIB1	(map 9)	

### Chronology of the regions.

In Fig. 38 we have indicated how different adhiṣṭhāna types expanded over the various areas and to what extent. We can draw some conclusions from the data provided by this figure.

In the first place, the IA2a base occurs regularly at all times and in all the four areas. Consequently, the IA2a variant cannot be used as an instrument to date either the uniform regions or the temples within these regions. Secondly, the typical Coḷa lotus-base, the IIB1 variant, which was tried out on the Pañcanādīśvara at Tiruvaiyāyūr and the Vīraṭṭaneśvara at Tirukkaṇḍiyūr (pp. 109), was hardly ever copied outside the delta and — when applied at all — it was only half a century later, provided the ramshackle building at Kīḷiyāyūr in South Arcot is dated after the well-proportioned temple at Tirunāmanallūr (pp. 110-111). The lotus-base evidently, did not impress the sthāpatis in the Palar region. Only the architects of the Gaṅgaikoṇḍacoḷeśvara at Kūḷamandal dating from ca. A.D. 1034, placed the entire building including the antarāla and the attached mukhamāṇḍapa on an ogeed jagatī.<sup>4)</sup> In the Tiruchirappalli District the construction of lotus adhiṣṭhānas started at about the same time as in the delta, but the practice died out almost immediately. In the third place, it can be concluded that the IB1 base never became popular. Originally a Pallava innovation in the beautiful, fluted version, the Coḷas probably applied it for the first time at Śrīnivāsanallūr or Alḷūr, although in a smooth version. In the delta it was applied at Tirunāvaiyūr for the first time and selected as base for the two imperial koyils. Half a century earlier this type was tried out in South Arcot and then only twice in one decade. In the Palar region this Pallava base seems to have been eliminated. Only in the early 11th century it turned up again under the large temple at Tiruppachchiyūr. In the former Muttaraiyar area only the Śiva Koyil at Kiranūr stands on a similar combination of mouldings. In the fourth place it is remarkable that the IB2b variant — most probably introduced with the construction of the Śaḍaḍaḍa Koyil at Tiruchchennampūṇḍi — was applied incidentally in the delta for almost a century, but hardly found acceptance outside it. The monuments at Iriddhāchalam and Dadapuram stand on this type of base in South Arcot, although they were built when the sthāpatis in the delta seem to have lost interest in this form. In the Palar region the IB2b variant was added exclusively under the ardhamāṇḍapas of the shrines as Tirumullaivāyil and Tiruvorriyūr. In the fifth place it can be noticed that the IB2a variant was created by the artists who designed the Gomukteśvara at Tiruvādūtūrai. As far as we have been able to trace it, this type of base seems to have been rather popular and was

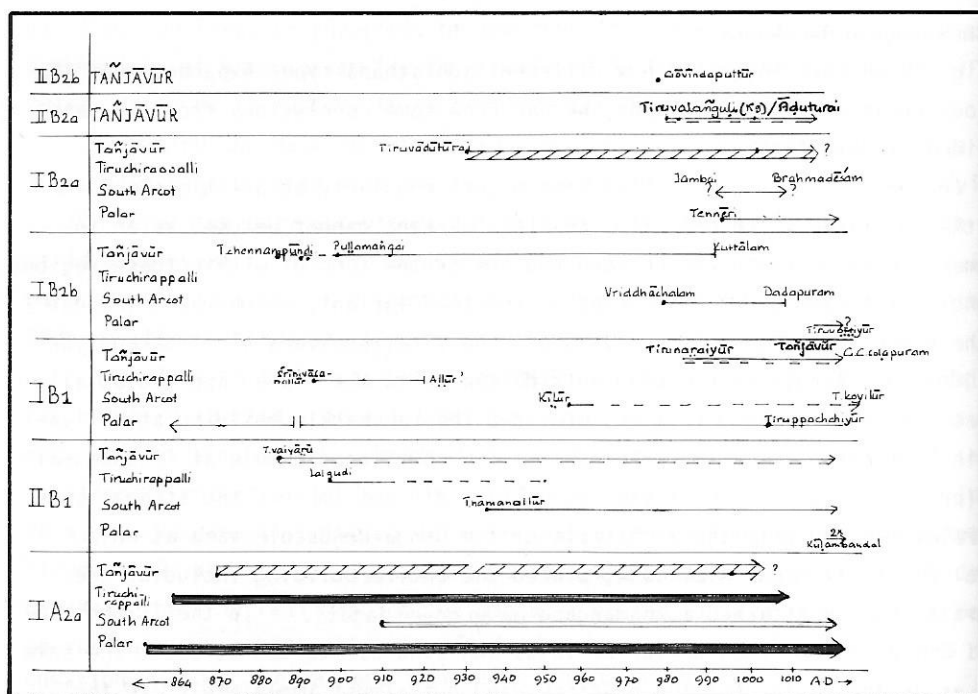


Fig. 38. Approximate appearance, disappearance and frequency of the seven types of known Coḷa adhiṣṭhānas, per district (cf. appendices 12-15).

#### Frequency

- more than 20
- 16 - 20
- 11 - 15
- 6 - 10
- Less than 6

applied well into the next century. Considerably later it appeared on the temple at Jambai in South Arcot. Furthermore, it occurred once in the Tiruchirappalli District at Nārttāmalai on the Melakadambūr, which is, however, a Middle Coḷa monument at the earliest (p. 157). Finally, it can be concluded that the IIB2a and IIB2b combinations hardly found favour outside the delta. This is remarkable, for it concerns two types of adhiṣṭhānas which were obviously devised in the workshop of Śembyan Mahādevī, since it occurs among others on the monument at Āḍuturai, dating from A.D. 969-980 (p. 163). This implies that in spite of royal patronage, the influence of the new developments in temple architecture did not reach the outer provinces. We observed the same phenomenon in the case of the other typical Early Coḷa invention,

the lotus moulding created in the days of Āditya I.

On comparing the dates in Fig. 38 with the position of the "regions" indicated on maps 7 and 9, we can, however, point out that:

- in the fringe areas of both the Palar region and South Arcot, temples were raised on a typical Early Coḷa base in a rather late phase and that the centre of these large tracts contain monuments which are older;
- the subsequent innovations of the Early Coḷa base seem to have radiated from a core: viz. the Sapta Sthāna group. We can notice an expansion in an eastward direction exhibiting the full course IA2a/IIB1 --> IB2b --> IB2a --> IIB2a. To the west no obvious development can be observed.

#### **2.4. Chronology of some temples in the delta based on the shape of their adhiṣṭhānas.**

##### *2.4.1. Chronology of the temples built between A.D. 870-900.*

The Sapta Sthāna architects hardly escaped from the dominating type IA2a (Fig. 39). It is the base of five out of seven shrines. However, although they surpassed themselves in resourcefulness with regard to the IIB1 design which serves as base for the monuments at Tirukkāṇḍiyūr and Tiruvaiyārū, neither of the two types can be used as criterion for the dating of other temples built before A.D. 900. We are less sure about the IB1 adhiṣṭhāna. It seems as if the architects of the koyil at Tirukkāṭṭuppaḷḷi were the first ever to apply this Pallava concept on a Muttaraiyar shrine (p. 144). Nevertheless, we are quite sure that it was renovated in later days in view of the awkward niches in the vimāna walls (Pl. 58b). Since the praṇāla is placed in the kumuda, it could well be that this renovation took place from the jagatī upwards. So, the rounded kumuda with lotus petals and carrying the attractive vyāli frieze could be a later addition.

Studying the three complex vimānas at Tiruchchennampūḍi (Pl. 35a), Śrīnivāsanallūr (Pl. 31c) and Kumbakonam (Pl. 30), we are inclined to consider them as further experiments in the combination of forms: the unique IB2b, the Pallava IB1 base and the usual IA2a combination, respectively. Fig. 39 shows that from the completion of these three monuments onwards all established types occur. So other criteria are needed to determine the dates of the remaining, supposedly early buildings.

##### *2.4.2. Chronology of the temples built between A.D. 969-1014.*

The two phases which were distinguished in the previous chapter in the period between A.D. 969-985 (Fig. 35, p. 160), are not re-inforced by a particular pre-

Fig. 39. Temples built before A.D. 900; their adhiṣṭhānas, varis and other characteristics (cf. appendices 7-9).

Name of village	c h a r a c t e r i s t i c s				
	adhiṣṭhāna	vari	upāna/panels	śik.	layout
Tiruppalanam	IA2a	under central niche	-	S	II-5-b/3-A-3
Tillaisthānam	IA2a	absent	-	S	II-3-b/3-A-3
Tiruvēdikkudi	IA2a	uninterrupted	panels	R	II-4-b/3-A-3
Tiruchchātturai	IA2a	absent	upāna-padma	S	II-2-b/1-A-3
Melatiruppūndu-rutti	IA2a	absent	-	O+R	I-2-a/1-A-3
Tirukkaṇḍiyūr	IIB1/ ?2a	uninterrupted	panels	R	II-2-b/1-A-3
Tiruvaiyārū	IIB1	absent	-	?	II-2-b/1-A-3
Tiruchchennam-pūṇḍi(W)	IB2b	interrupted by central niche only	panels	?	II-4-b/3-A-3
Śrīnivāsanallūr(W)	IB1	Coḷa <sup>1)</sup>	-	S	II-3-b/1-7-3
Kumbakonam(E)	IA2a	Coḷa	upāna-padma/panels	S	II-3-b/3-A-3
Puḷḷamaṅgai(E)	IB2b/IIB1	Coḷa	panels	S	III-4-b/1-A-3
Tiruverumbūr(W)	IA2a	(Coḷa)	panels	?	I-1-a/1-A-3
Tirukkaḷavūr(E)	IA2a	Coḷa	panels	O	I-2-a/1-A-3
Lalgudi(W)	IIB1	Coḷa	panels	R	I-2-a/1-A-3
Nemam(W)	IA2a	Coḷa	panels	S	II-2-b/1-A-3
Kilaiyūr(W)	IIB1	absent	-	SR	II-2-b/1-A-3
Tiruchchendurai(W)?B1		absent	-	S	II-2-b/1-A-3
Aḷḷūr(Pan.)(W)	IIB1/IB1	absent	-	O	II-2-b/1-A-3
Aḷḷūr(Pas.)(W)	IA2a	absent	-	R	I-2-b/1-A-3
Aṇḍanallūr(W)	IA2a	absent	-	?	II-4-b/1-A-3
Nangavaram(W)	IA2a	absent	-	R	II-2-b/1-A-3

E, W = East, West of the Sapta Sthānas; P=pañjara; S=square; R=round; O=octagon  
 ?=śik(hara)probably not original. 1) Here the vari is already interrupted by the vimāna niches. However, the vari runs on under the niches of the ardhamandapa. At Tiruchchennampūṇḍi and Kumbakonam the vari is interrupted by the niches in the ardhamandapa. Not included are the temples at Sendalai and Tirukkāṭṭuppalī, both reconstructed by the Coḷas on a Muttaraiyar base of type IB3 and I(B1) respectively (cf. Fig. 43a, p. 216).



Fig. 40 Temples built between A.D. 969-1014; their adhiṣṭhānas, śikhara and layout (cf. Fig. 35, p. 160 and appendix 11).

Name of village	c h a r a c t e r i s t i c s			
	adhiṣṭhāna	śikhara	lay-out	phase
1. Kūṇērīrājapuram	IA2a	round	I-2-a/1-B-3	A.D. 969-980
2. Tīranūr	IB2a"	round	I-2-a/1-B-3	
3. Tīrunāgeśvaram	IB2a"	round	I-2-a/1-B-3	
4. Ādaturai	IIB2a"/IB2a"	round	I-2-a/1-B-3	
5. Tīruvalaṅguḷi (Ks)	IIB2a	round	I-2-a/1-B-3	
6. Tīrunaṇṇaiyūr	IIB1/IB1	octagonal	I-2-a/1-B-3	ca. A.D. 980
7. Tīrupugalūr	IIB2a"/IB2a"	octagonal	I-2-a/1-B-3	
8. Tīruvirāmeśvaram	IIB2a"	square	I-2-a/1-B-3	
9. Pateśvaram (18)	IB2a"	octagonal	II-2-b/1-B-3KP	
10. Tīrukkodikaval	IA2a	round	II-2-b/1-B-3	
11. Vīdhāchalam	IB2b'-	round	II-2-b/1-B-3)	
-----				
12. Kūhūr	IB2a	round	II-4-b/1-B-3	A.D. 981-985
13. Ānangūr	IA2a	round	II-4-b/1-B-3	
14. Tīruviḍaimarudūr	IA2a	octagonal	II-4-b/3-B-3	
15. Sembyan Mahādevī	IB2a"	?	II-4-b/3-B-3	
16. Tīrucheṅgātṭāṅguḍi (16)	IB2b"	octagonal	II-4-b/1-B-3BN	
17. Tīruvārūr	IB2a"	octagonal	III-5-c/3-A-3	
18. Vāgapattinam	IA2a	octagonal	?-2-b/3-A-3	
-----				
19. Kuttālam	IB2b'/IIB2b'-	octagonal	II-2-b/1-B-3P	A.D. 986-1000/ 1014
20. Tīruvalaṅguḷi (Main)	IB2a"/IIB2a"	?	II-3-b/1-B-3KP	
21. Manampādi	IB2a'	round	II-4-b/1-B-3P	
22. Tīrukkaḍaiyūr	IA2a	octagonal	II-3-b/1-B-1P	
23. Tīruvaiyārū (TK)	IIB2a	round	II-4-b/1-A-3P	
24. Tīruvaiyārū (UK)	IIB1	round	II-2-b/1-B-1BN	
25. Puñjai	IA2a	round	I-1-a/1-B-1/2	
26. Tīrumiyachchūr	IIB2a"/IB2a"	apsidal	I-E-a/1-B-3	
27. Tīruvenkāḍū	IIB1	round	I-2-a/1-A-0	
28. Tīrukkoḷḷikkāḍu	IB1	octagonal	I-2-a/1-A-1	
29. Vēdāraṇyam	IB1	octagonal	I-1-a/0-A-0	

23. The "citizen" koyils in the villages Gōvīndaputtūr, Gandaradittam and Tīrukkuhukavūr are standing on a IIB2b, IB2b and IA2a, respectively (cf. appendix 9).



ference for one or two types of adhiṣṭhāna. The temples built during the reign of Rājarāja I do not show up as a group either. In Fig. 40 this statement is made sufficiently clear, for six different combinations occur among monuments styled as Śembyan Mahādevī koyils and seven types of adhiṣṭhānas were applied on shrines built between A.D. 985-1014 — if we include the IIB2b base under the pañjaras at Kuttālam. In Fig. 41 each period, including the transitional year A.D. 980 is represented by one example.

The phase characteristic type IIB2a was applied in two ekatalas of the first period, viz. in those at Tiruvalaṅguḷi (Ks) and Tiruvirāṇēśvaram (Pls. 40 a-b).<sup>51</sup> The exceptional position of the IB1 base at Tirunaṇṇaiyūr (Tn) in the IIB2a area on map 9, could be interpreted as an indication that this monument does not belong to the first group of ekatalas, or that it should be considered the very first or the very last element added to the distribution-pattern. However, apart from the koyil at Kōṇērirājapuram, the ekatalas are on the whole characterized by the IB or IIB component, whatever the layer placed above it.

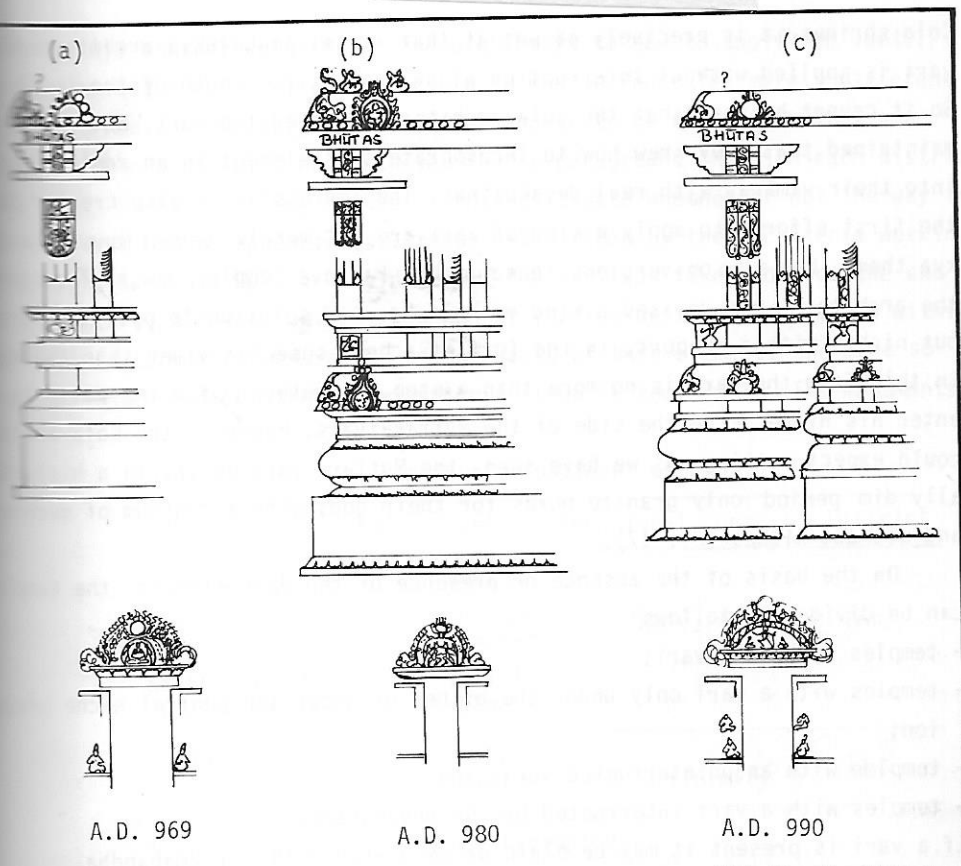
The adhiṣṭhānas of the dvitalas built before A.D. 985 display a strange feature, for they show up in pairs: the A and B components are designed in turn and the a and b mouldings in the temples at Tirukkodikkaval and Vriḍdhāchalan also alternate. For the moment we do not know whether these pairs are purely accidental or intentional, but the same monuments will reappear when we compare the contours of their kāls in combination with additional decorations such as remaining vyālis, panels, lotus buds or idaḷs. We, therefore, prefer to postpone the discussion of these shrines till the paragraph dealing with the kāl where we shall return to this problematic group.

### 3. Composition of the vari

#### 3.1. Typology.

As said before, the vari must be taken as an element of the wall. It is a fascia sticking out for about five centimetres with a slanting profile towards the outer rim on which lotus petals have occasionally been engraved. In Coḷa temples this vari is interrupted by niches.

The history of this small bandha is intriguing, for its appearance differs depending on the people who applied it to the vimāna walls. In Pallava or Eḷam monuments the vari does not run along the entire wall of the building, but is either limited to the central bay or to the central niche itself (pp. 98-99). In both cases part of the vari is present under the images, whereas in later



41. Architectural details of some Śembyan Mahādevī kōyils. a) Umāmaheśvara, Kōṇērīrājapuram; b) Vṛiddhagīrīśvara, Vṛiddhāchalam; c) Uktavedeśvara, Kuttālam.

N.B. The development of the plain type of base into one of which the layers are decorated each in its own way (Kuttālam) coincided with a development of the wall ornaments as is illustrated by the appearance of the pilaster.

At Kōṇērīrājapuram the kaṇṭha is the only part of the base which is modestly decorated with small panels; its pilasters are round and octagonal, all displaying a delicately carved mālaśthāna; its kapota carries a series of kūḍus framed with either three rather large curves (right) or with a bundle of tiny strings (left).

At Vṛiddhāchalam the upāna and the kumūḍa display a padma-bandha; there are four types of kāl, the octagonal and polygonal pilasters exhibit an entirely new element, viz. the lotus buds immediately above the square base of the kāl; its kapota carries a row of kūḍus interrupting a band of circles in contrast to the situation at Kōṇērīrājapuram where circles are part of the kūḍu.

At Kuttālam the new additions are the pañjaras, the IIB2b base under these pañjaras, the vertical band of garlands on the square part of the kāl and the position of the kūḍu above the band of circles.

Coḷa shrines it is precisely absent at that place. In Cāḷukya architecture the vari is applied without interruption along the entire length of the temple wall. So it cannot be said that the Coḷa architects devised the vari, but it can be maintained that they knew how to incorporate this element in an admirable way into their vimānas with real devakoṣṭhas. The impression is also created that the first efforts to apply a kind of vari are not merely variations on a Cāḷukya theme, but also on versions found on late Pallava temples. For, at Tiruppallāṇam the architect had devised a kind of half-hearted solution to provide the cut-out niches with a support, in the form of a beam somewhat wider than the niches. In this form the vari is no more than a step, a footboard for the deity to enter his niche. From the side of the Muttaraiyars, however, the Coḷa artists could expect nothing. As we have seen, the Muttaraiyars built, in a historically dim period only granite boxes for their gods with a minimum of decoration and without niches (Pl. 17).

On the basis of the absence or presence of the vari element, the temples can be divided as follows:

- temples without a vari;
- temples with a vari only under the niches or under the central niche projection;
- temples with an uninterrupted vari; and
- temples with a vari interrupted by the devakoṣṭhas.

If a vari is present it may be plain or decorated with a padmabandha.

### **3.2. Distribution of the vari variants; determination and description of uniform regions.**

On map 10 the areas have been plotted which can be demarcated on grounds of the uniform distribution of, among others, particular vari types. This time, at last, large regions show up. These are characterized by:

- temples without a vari, viz. almost the entire area south of the undivided Kāverī and a strip along the Ponnaiyar in South Arcot;
- temples with a padmabandha on the vari, viz. the central area in the Kāverī delta, South Arcot except the strip along the Ponnaiyar, the Palar region except the Pallava monuments with the cut-out niches discussed already in chapter three (pp. 98-99); and
- temples with a plain vari, viz. the zones around the central part of the Kāverī delta and along the northern bank of the undivided Kāverī.

The small area around Tañjāvūr shows a mixture of all types, especially the three oldest of the Sapta Sthānas: the vimānas with three devakoṣṭhas, each of

which displays another solution of the problem as to how to apply the vari.

In general, the distribution-pattern in map 10 indicates merely differences between regions and only a few temples appear to be anomalies. They are listed in Table D and will be discussed in the paragraphs in which each district is analysed. However, it may be useful to investigate whether or not the way in which the vari had to appear, was already established by the architects working on the Sapta Sthānas. For, if the place of the vari was fixed towards the end of the 9th century, a chronological sequence of the regions and the temples within these regions cannot be determined on the basis of this element, the more so since in this respect the distribution-pattern is too simple. The monuments

Table D.  
Anomalies in the distribution-pattern on map 10.

Name of the village	vari	locational context	District
Nirpalani(Ni)	vari		
Enadi (E)	uninterrupted	no vari	Tri.
Nārttāmalai(Na), (Melakkadambūr)	vari + upāna		
Sapta Sthānas	no uniformity	uniformity	Tj.
Tiruvamattūr(Tv)	uninterrupted		
Tirunāmanallūr(T)	absent	vari	
Tiruvakkarai(Tk)	uninterrupted + upāna		S.A.
Tiṇḍivanam (Ti)	uninterrupted		
Mēlpādi(M)(Som.)	absent		
Takkōlam (Ta)	footboard vari	vari	N.A.
Brahmadēśam (Br)			
Tiruttāni (Tt)			
Velachchēri(V)			
Tiruvanmiyūr(Tm)			

of which we assumed that they were designed before A.D. 910 were listed in appendices 7-9 and appear in Fig. 39 (p. 208) as having been built before A.D.900. We shall now explain why they have to be considered as 9th century monuments.

### 3.3. Development of the vari in and around the group of Sapta Sthānas.

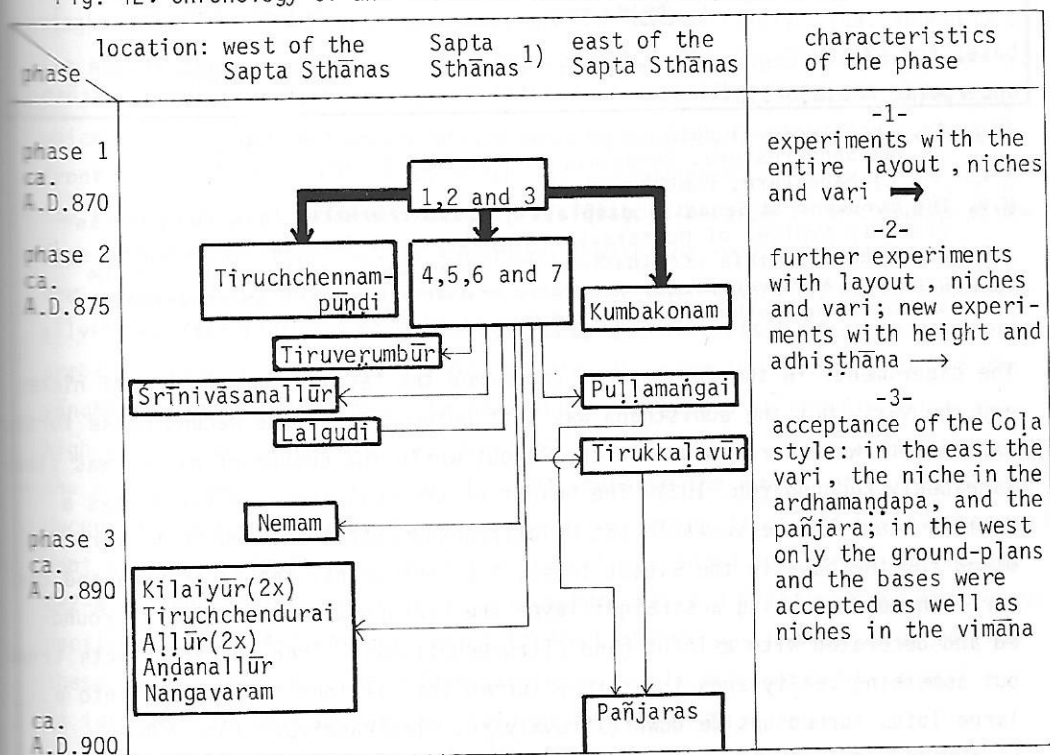
The architectural details given in Fig. 39, compel us to draw a number of conclusions. Firstly, the three oldest of the Sapta Sthānas, have the usual Pallava base integrally, but show experiments with the Pallava and Cālukya types of vari. In the second place, it becomes more likely that the shrines at Melattiruppūndurutti and Tiruchchātturai form a small subclass. These two monuments do not only share the layout 1-A-0, in which respect they deviate from the previous three temples, but they also have the same base, i.e. the IA2a type without a vari running along the entire wall. They do differ, though, in the number of talas and in the shape of their upānas and śikharas. We, therefore, believe that the sthapātis tried to experiment with a new layout by applying variations in the elements mentioned, while in other respects they reverted to old Pallava concepts. In the third place, it becomes clear that the koyils at Tirukkaṇḍiyūr and Tiruvaīyārū are the last two of the Sapta Sthāna group, for here the concept of the lotus jagatī was realized for the first time. The shrines correspond in their height and in their groundplan, i.e. II-2-b. They differ, however, in their layout, 1-A-, and in the application of the vari. Moreover, in our opinion there is a far more important aspect which should be stressed, viz. the fact that the bases under their ardhamāṇḍapas are not identical: the ardhamāṇḍapa at Tirukkaṇḍiyūr does not stand on a IIB1 base, but presumably on a IA2a or a IB2a adhiṣṭhāna, for the -2a part is just visible above the pavement. Unfortunately, the ardhamāṇḍapas do not have a praṇāla, so the pit which in such cases is dug out in front of the Durgā niche in order to catch the abhiṣeka water, is absent—a circumstance which makes it impossible to determine the now firmly hidden mouldings. If the pavement around this shrine should ever be removed it is possible that the ardhamāṇḍapa would appear to be standing on a IA2a base. The shrine would then be a transitional type in which the architects had not yet dared to place the original IIB1 concept under the entire building as in the case of the Pañcanādīśvara at Tiruvaīyārū. However, in our opinion, it is also possible that a IB2a adhiṣṭhāna would be discovered under the ardhamāṇḍapa. This would explain the rather sudden appearance of the IB1 adhiṣṭhāna at Śrīnivāsanallūr and Aḷlūr (Pañ.). At the latter village two types of base were designed for one and the same building, so an ardhamāṇḍapa of a IB2a type for the temple at Tirukkaṇḍiyūr seems a reasonable guess. In the fourth place, we have noticed a continuation of the vari experiments in the Śaḍayar koyil at Tiruchchennampūṇḍi. Here the first step was taken towards the real "Coḷa" vari (Pl. 35a and Fig. 39). The vari is already missing under the central devakoṭhas but is still present under the lateral niches. The other two



vimānas with three devakoṣṭhas, viz. the Koranganātha at Srīnivāsanallūr and the Nāgeśvara at Kumbakonam, show that the consequence was finally drawn: in both buildings the vari is interrupted by all niches. From this fact two conclusions can be drawn. Firstly, the Koranganātha should be considered an Early Coḷa monument since it is decorated by a vari, an element entirely unknown in the Irukkuvel area (map 10), and secondly, the Śaḍayar koyil must have been built before the Nāgeśvara, i.e. before A.D. 886, since the latter represents a later phase in the development of the vari.

In Fig. 42 we have tried to indicate and characterize the successive phases in which the rather phantastic string of Śiva koyils along the borders of the Kaverī, listed in Fig. 39 were designed. The main characteristics of the first two phases were derived from the Sapta Sthānas, those of the last phase from the distribution-pattern of the variants discussed so far.

Fig. 42. Chronology of and relations between the temples built before A.D.900



1) the nos. 1-7 represent Tiruppalamam, Tillaisthānam, Tiruvēdikkudi, Tiruchchatturai, Melatiruppūndurutti, Tirukkandiyūr and Tiruvaiyāṟū.



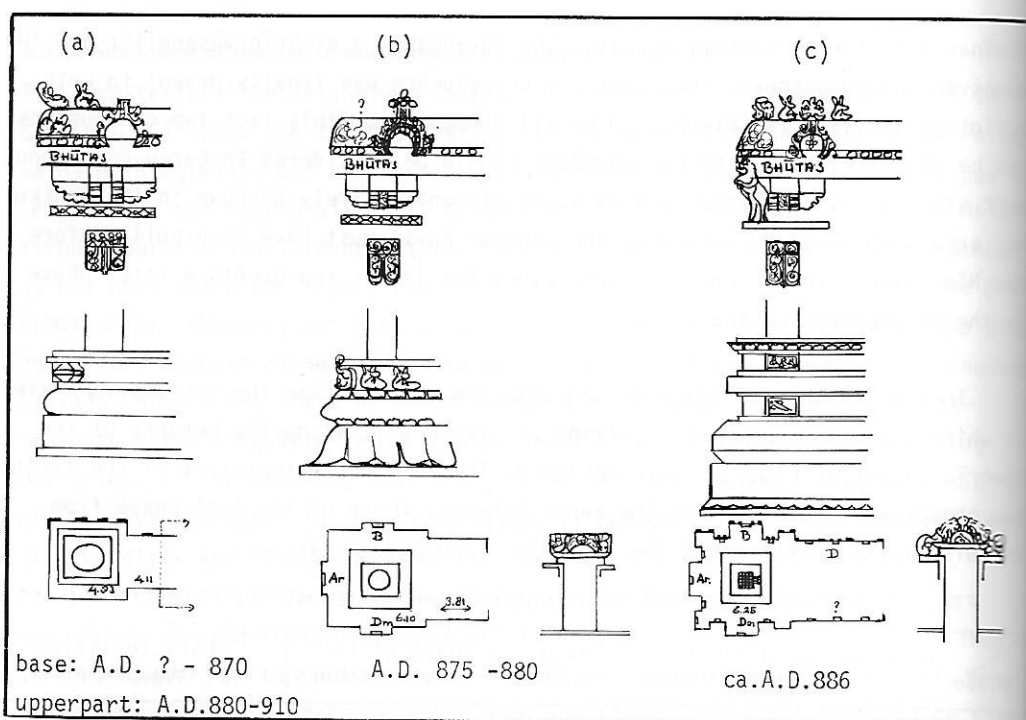


Fig. 43. Architectural details of some koyils around Tañjāvūr.  
a) Sundaresvara, Sendalai; b) Pañcanādiśvara, Tiruvaiyārū;  
c) Nāgeśvara, Kumbakonam.

N.B. The monument at Sendalai displays a hybrid character. Its IB3 base is probably typical of Muttaraiyar architecture, for the Early Coḷas never applied this combination. The upper part of the walls and the prastara are beautifully decorated — a feature which is strikingly absent on all other Muttaraiyar koyils in this area (cf. Pls. 17-18).

The experiments in the first phase concerned the layout, the number of niches and the vari, but the adhisthāna was left untouched. In the second phase further experiments were carried out in the layout while the number of niches was simultaneously reduced (pp. 102). The height of the building — so far always a dvitāla — now became variable (at Melatiruppūndurutti) and new forms were devised for the base in the widest sense, i.e. the upāna, the adhisthāna and the vari. Instead of being a straight layer the upāna now became slightly rounded and decorated with a lotus band (Tiruchchātturai). Then the architects tried out something really audacious: they turned the straight tall jagatī into a large lotus turned upside down (Tiruvaiyārū, Tirukkaṇḍiyūr, Fig. 43b).

Having formulated the characteristics of the second phase, a few more monuments can now be added to this phase:

— the Śaḍayar koyil at Tiruchchennampūṇḍi (Pl. 35a), because it obviously

- represents the final stage of the vari experiments and introduces a new type of adhiṣṭhāna, whereas its layout and the number of niches were copied from the shrine at Tiruvēdikkudi (Pl. 25);
- the *Nāgeśvara* at Kumbakonam (Pl. 30, Fig. 43c), east of the Sapta Sthānas, because it seems to introduce the new Coḷa vari and combines the concept of a lotus upāna with panels on the kantha, a combination first found on the shrines at Tiruchchātturai (Pl. 26), and Tiruvēdikkudi (Pl. 25), respectively. Its layout is identical with that of the koyil at Tillaisthānam (Pl. 24), and its number of niches with that of the shrine at Tiruvēdikkudi. No experiments with the height can be noticed in the *Nāgeśvara*, but we may say that a design for the superstructure was tried out, for at present the square śikhara is extended with a modern śukanāsa which is probably a replacement of a dilapidated prototype on its eastern side (p. 47);
  - the *Brahmapurīśvara* at Puḷḷamaṅgai, east of the Sapta Sthānas (Pls. 38a-d), because it shows experiments with the height. Furthermore, it has a hāra running along the ardhamāṇḍapa, once more an old Pallava concept, (cf. appendix 3). Its number of niches was reduced and pañjaras were applied instead. These pañjaras stand on the brand new adhiṣṭhāna of type IIB, its ardhamāṇḍapa which has a layout with a central niche projection and a small extension in front of it, is copied from the shrine at Tiruppalanam;
  - the *Koranganātha* at Śrīnivāsanallūr (Pls. 31a,c), because it introduces a new type of base and shows further experiments with the roof construction on a new layout, i.e. that of a sāndhāra or double-walled vimāna, which automatically requires a revision of the customary dvitala. Its roof is made of brick, probably because the sthāpatis did not dare to cover the entire width of the sāndhāra with granite slabs. The hāra above the kapota is roughly twice as high as the hāra of an ordinary dvitala;
  - the *Pipīlesvara* at Tiruverumbūr (Pl. 39), because the number of niches was reduced by replacing them partly by pañjaras according to an old Pallava concept (p. 118). Simultaneously, a new layout was added to the new II-2-b and I-2-a designs of the monuments at Tiruchchātturai and Melatiruppūndurutti respectively. The 1-A-0 combination of the *Pipīlesvara* was, however, copied from these two koyils. The base — decorated with panels and covered by a vari — is identical to that of the *Nāgeśvara* at Kumbakonam;
  - the *Saptarṣīśvara* at Lalgudi (Pl. 32), west of the Sapta Sthānas, because it introduces either the first mukhamāṇḍapa or the first antarāla (p. 158). It is the first example of an Early Coḷa temple with a Coḷa vari running along its walls above a Coḷa adhiṣṭhāna. Its layout, however, is identical with that of

the koyil at Melatiruppūndurutti (Pl. 29a);

- the *Madhuvaneśvara* at Tirukkaḷavūr, because here the final phase in this assumed development was reached. This small monument combines the layout of the shrine at Melatiruppūndurutti with the concept of one niche in each wall of the ardhamāṇḍapa as applied in the dvitalas among others at Tirukkaṇḍiyūr. It stands on a IA2a base, so in principle the sthāpatis could not add a vyāli frieze. Nevertheless, they found a place for a beautifully executed frieze of running animals (Pl. 53) above the kapota of this building. Its I-2-a vimāna and 1-A-1 layout and the presence of the vari interrupted by the five niches became the most popular combination in the delta, east of the Sapta Sthānas (Fig. 24a, p. 89).

At Nemam (Pl. 59), west of the Sapta Sthānas, no new contribution can be noticed. It is the site of a II-2-b/1-A-0 building identical to that of the koyil at Tiruchchātturai (Pl. 26), the only difference being that the former has a vari running along its walls, whereas the latter has plain walls.

In phase 3 a regional differentiation occurs: west of Nemam temples were built with layouts identical to those of the Sapta Sthānas, i.e. II-(2, 3 or 4)-b and I-2-a, but all without a vari and without niches in their ardhamāṇḍapas. East of the Sapta Sthānas the vari and the niche in the vestibule will become a permanent feature of the koyils constructed during the subsequent period, i.e. the pañjara phase in which the false antarāla is a second characteristic (cf. appendix 8, no. 3 and appendix 10). A third peculiarity during the following period is the predominance of the ekatala.

In a geographic time-perspective we seem to observe a kind of religious consolidation of the political power of Āditya I in the area he had firmly in hand. First he ordered the construction of the seven shrines right in the heart of the old Muttaraiyar region, between Śendalai and Tañjāvūr. Next, after having built the koyils at Tiruchchennampūṇḍi and Tiruveṇṇambūr, he demarcated his territory by financing the imposing structures at Kumbakonam and Śrīnivāsanallūr on the periphery. He then stimulated the replacement of the old brick shrines by stone structures in the rather narrow, but fertile strip along the borders of the Kāverī, first near Tañjāvūr itself, at Puḷḷamaṅgai, Lalgudi, Tirukkaḷuvūr and Nemam, later in the other villages west of the Grand Anicut.

This second group was probably built under the patronage of the Irukkuveḷas, since Āditya I himself left the delta around A.D. 890, in order to subjugate the Pallavas. This course of affairs cannot be confirmed with certainty as the information with regard to the political campaigns of Āditya I is scarce.<sup>6)</sup> From

A.D. 890 till some years before his death he is known to have lead expeditions to the northern provinces far beyond Mēlpādi, Tiruttāni and other places, in order to settle his affairs with the Pallavas. This can only mean that he could safely leave his capital and the regions conquered during the past twenty years. In other words, he left some sort of administration behind looking after law and order in his kingdom. On the other hand, he had to feed his elephants and soldiers and pay the latter during his campaigns. So his financial position — even though supplemented by forced labour and payments by the population of the villages in which he camped — must have been less favourable.

This could have been the reason why no more temples were constructed in the delta till Parāntaka I succeeded his father in ca. A.D. 907. The stone koyils situated between Tiruveṟumbūr and Śrīnivāsanallūr must have been built in the last decade of the 9th century under the supervision of his vassal, the Irukkuvel chief<sup>7)</sup> and by the architects and craftsmen of Āditya I who would otherwise have been left unemployed.

#### 14 Application of the vari in other regions.

##### 14.1. *The region south of the undivided Kāverī* (Table D, p.213).

Although we can be quite certain about the development of the vari in the old heartland of Āditya I, we must remain vague about the monuments in the other parts of the Tiruchirappalli District. Here the vari was never accepted as an embellishment of the wall (map 10). The only two monuments with a vari south of the Kāverī are located at Nirpalani (Ni) and at Nārttāmalai (Na) where the Melakkadambūr is decorated with this detail. Both shrines have been discussed previously (chapter three, note 3, and pp. 156-157 resp.). The first building was renovated at some unknown time, the second dates from the days of Rājendra I at the earliest. The building at Enadi (E) with its uninterrupted vari is a remarkable anomaly. Balasubrahmanyam assumes that this small, unattractive shrine is an example of the Muttaraiyar style<sup>8)</sup>, but we would rather suggest that it was rebuilt on an old base, since the vari is an ornament unknown to the Muttaraiyars as map 10 shows. The adhiṣṭhāna is moulded according to the 142a form current in this area, and there are no niches, but in fact this is exactly the reason why the vari is not interrupted. Because renovation took place from the paṭṭikā upwards and on a layout not meant for niches, the builders were not hampered by them and consequently applied the vari on niche-less walls. The fact that the ardhamaṇḍapa is replaced here by a small portico is another anomaly in this area, where the Muttaraiyar koyils always have a closed

ardhamaṇḍapa, however small this may be.

3.4.2. *The South Arcot District* (Table D, p. 213).

South Arcot is an area where the vari has a dominant position (map 10). A few temples do not have this ornament and only three have the archaic uninterrupted vari. All monuments in this region are listed in appendix 13. The latest example of a shrine without a vari is located at Bāhūr (6) which was under construction in or before A.D. 965. Except for the shrine at Tirunāmanallūr (13) the buildings without vari are situated along the Ponnaiyar or to the south of this river. We are inclined to believe that the introduction of the vari, which was apparently a foreign ornament, occurred around A.D. 960. The same obvious reluctance to include this element — observed in the Tiruchchirappalli District where the vari was applied on renovated monuments only after A.D. 950 (Tiruppalturai, Uyyakkōṇḍān Tirumalai, Nirpalani, pp. 140- 41; 148- 49; chapter three, note 3) — may have prevailed also in South Arcot. We shall now discuss the temples listed in Table D, p. 213 and appendix 13, in order to establish whether this supposition is correct.

*The Śiva Koyil at Pēraṅgiyūr* (Pls. 65a-b, appendix 13, no. 5).

This shrine has a square ground-plan common in the heart of South Arcot (map 5). It is the typical Pallava layout rejected by all Early Coḷa architects. Since the dated monuments at Erumbūr, Grāmam and Tirunāmanallūr (Figs. 44b-c, 45a) all have the Coḷa version, in which the central part of the vimāna-wall juts out (-2-), we may assume that at least the base of this Śiva Koyil is older than those of the three dated monuments just mentioned, i.e. older than A.D. 935. The inscriptions running from A.D. 924 to far into the reign of Rājaraḷa I seem at first glance to confirm this view. However, in that case the presence of five full-fledged niches is problematic (Fig. 27, p. 96, p. 102), for the shrines at Tiruvāmattūr (Fig. 44a) and Erumbūr, dated around ca. A.D. 910 and A.D. 935 (appendix 13) respectively, do not have proper niches — only holes are carved out in their walls (Fig. 27, p. 96; Pl. 66). The temples at Grāmam, Tirunāmanallūr and Kīḷiyanūr dated in A.D. 943, 935 and before 940, all have one devakoṣṭha in the wall of either the vimāna or the ardhamāṇḍapa. Now, the niche in the wall of the ardhamāṇḍapa at Pēraṅgiyūr is peculiar in the sense that the normal, tall pilasters flanking the shorter niche-pilasters are absent and the connection of the vimāna to the ardhamāṇḍapa is not constructed in the usual way. The first pilaster of the ardhamāṇḍapa should either be directly connected to the corner pilaster of the vimāna in such a manner that the two palagais touch each other.



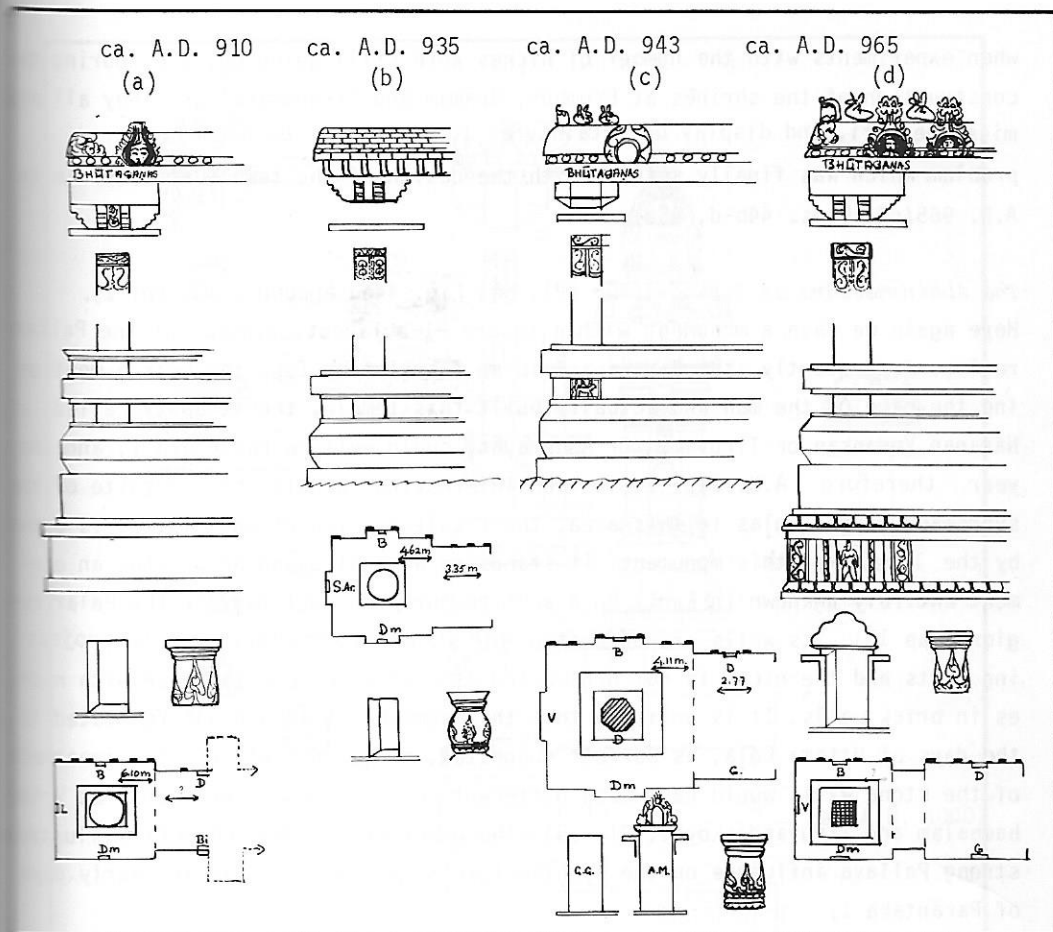


Fig. 44. Architectural details illustrating the slow development of the Early Coḷa style in an area dominated by a strong Pallava influence (South Arcot between A.D. 910-965).

a) Abhirāmeśvara, Tiruvāmattūr; b) Kadambavaneśvara, Erumbūr;  
c) Śivalokanātha, Grāmam; d) Śrīmulanātha, Bāhūr.

or else they should be placed some distance away from the corner of the vimāna (cf. Pls. 53, 54 and 82). So, obviously something happened to the original ardha-maṇḍapa, which must have been without niches. The fact that the inscriptions run over the lintel above the image of Gaṇeśa is a sure sign that they were copied from older stones since records in places where they do not belong are only found on renovated koyils (for instance at Kōyildēvarāyanpēṭṭai, Mēlpādi). We, therefore, suggest that the former porche has disappeared and was rebuilt partly with the original stones, since the kapotas are similar. This must have happened



when experiments with the number of niches were still going on, i.e. during the construction of the shrines at Erumbūr, Grāmam and Tirunāmanallūr. They all miss the vari, and display uncertainty as to the number of niches, a problem which was finally settled with the design of the temple at Bāhūr in ca. A.D. 965 (cf. Figs. 44b-d, 45a).

*The Abhirāmeśvara at Tiruvāmattūr* (Pl. 66; Fig. 44a; appendix 13, no. 2).

Here again we have a monument with a square -1-b layout, typical of the Pallava region. Consequently, the Parakesari in an inscription for the year 6 mentioning the name of the man who actually built this temple, the sthāpati called Naranan Vedankan or Tiruvāmattūr Acharayan, could well be Parāntaka I, and the year therefore A.D. 913. It is then interesting to note that in spite of the supremacy of the Coḷas in this area, their cultural impact was nil, as is proved by the layout of this monument. It stands on a high upāna or plinth, an element entirely unknown in Early Coḷa architecture and customary in the Palar region (map 10). Its walls are decorated with six pilasters, there are no projecting parts and the niche is not ornamented as must have been the case with niches in brick walls. It is unlikely that this semi-brick temple was renovated in the days of Uttama Coḷa, as Barrett suggested, since in that case the treatment of the stone walls would have been different (cf. the nearby monuments at Virūhachālam and Tiruvāndārkōyil, Pl. 68). The uninterrupted vari therefore illustrates strong Pallava influence on the architecture of South Arcot in the early days of Parāntaka I.

*The Candramoulīsvara at Tiruvakkarai* (Pl. 67; appendix 13, no. 1).

According to Barrett and Balasubrahmanyam, this shrine was renovated in the day of Śembyan Mahādevī ca. A.D. 1000. Our previous statement that renovations dating from that period should show a Śembyan Mahādevī touch would seem to be contradicted, for the vari runs on. This monument, however, possesses a strange combination of features: it stands on a low curved upāna, has a 1A2a base, a square lay-out like the shrines at Pēraṅgiyūr and Tiruvāmattūr, plain undecorated pilasters and niche-pilasters, all looking brand-new. The cornice, on the other hand, with its large, wide open kūḍus, is a beauty, and so are the palagais, and the curved podigais without median band. In fact, the obvious difference in ornamental treatment of the upper and lower parts of this building indicates that the old shrine was taken down and replaced by another, in the course of which worthwhile remnants such as the kapota, the corbels and some of the original palagais were re-used. Since the kapota is straight, the underlying building

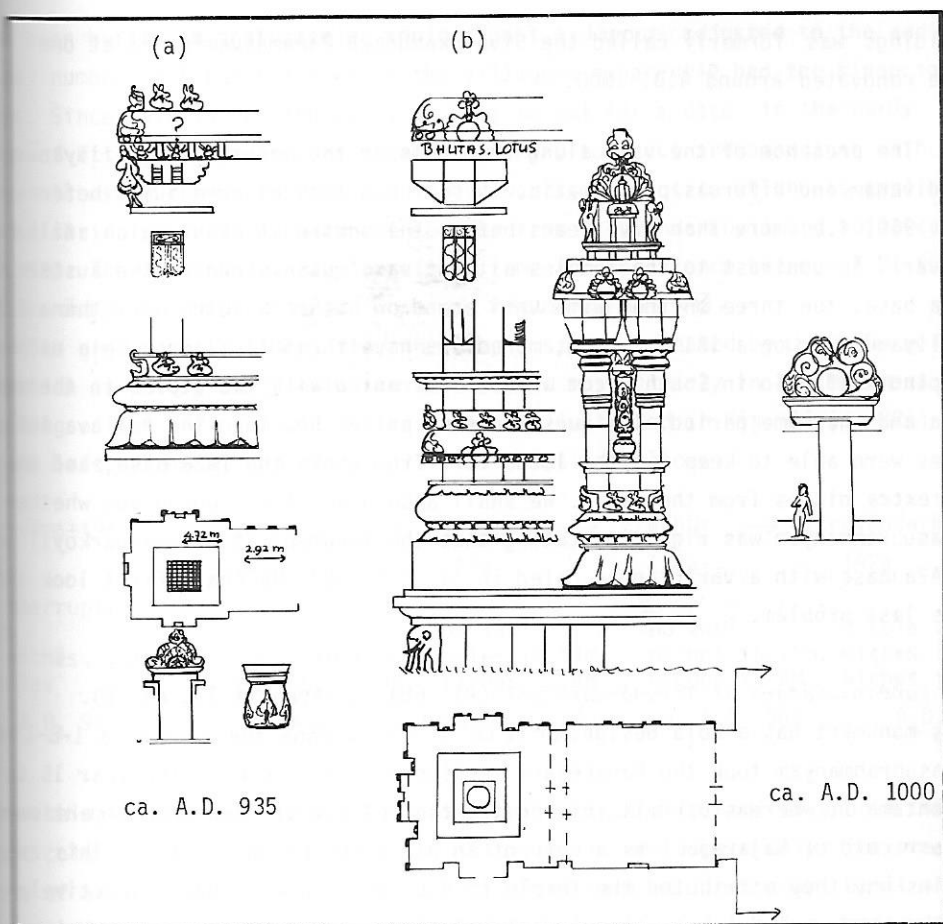


Fig. 45. Architectural details of the Early Coḷa style in South Arcot characteristic of the 10th century.

a) Bhaktajñāneśvara, Tirunāmanallūr; b) Kundavai Vinnagar Alvar, Dadapuram.

ing also had to have a straight layout as the kapota would otherwise not fit. The point is whether this happened in A.D. 1000 or much later. We are inclined to believe the latter, because the inscription mentioning the renovation of the shrine, refers to the rebuilding of a koyil called the Śivalokamudaya Paramaśvāmin. We know that temple names often changed, but we also know that records on one shrine occasionally mention events referring to another koyil in the same village or even in another hamlet. Now, Barrett classified the Candramoulīśvara as a monument standing on a IB1 base. This is not correct, since its base belongs to the IA2a category. However, there are a few minor shrines in the compound showing the IB1 adhiṣṭhāna, so it is quite possible that one of these smaller

buildings was formerly called the Śivalokamudaya Paramaśvāmin and at one time renovated around A.D. 1000.

The presence of the vari along the walls of the monuments at Kīḷiyanūr, Tiṇḍivanam and Kīḷūr is problematic. These three temples were built before A.D. 960, i.e. more than five years before the shrine at Bāhūr which still had no vari. In contrast to the temples without vari which stand on the austere IA2a base, the three shrines with vari stand on either a lotus adhiṣṭhāna IIB1 (Kīḷiyanūr) or on a IB1 base and, moreover, have the full-fledged Coḷa niches (appendix 13). So in South Arcot we are confronted with two styles in the same area and the same period. The question then arises how long the Pallava influences were able to keep out the lotus vari from above the IA2a base, and the two extra niches from the walls. We shall also have to ask ourselves whether Balasubrahmanyam was right in stating that the monument at Tiruvāṇḍārkōyil on a IA2a base with a vari can be dated in ca. A.D. 922. We shall first look into this last problem.

*The Pañcanāḍīśvara at Tiruvāṇḍārkōyil* (Pl. 68a-b; appendix 13, no. 8).

This monument has a Coḷa design: for it is a -2-b vimāna and part of a 1-B-11. Balasubrahmanyam took the Parakesari mentioned in a record of the year 15 to be Parāntaka I, whereas Barrett interpreted the year 14 of Parāntaka I mentioned in a record of Rājarāja I as a copy of an old inscription (p. 156). This explains why they attributed the temple to A.D. 922 and A.D. 990 respectively. In the same copied inscription in which Parāntaka I is mentioned, a gift is recorded of the days of Kṛṣṇa III or Kannaradeva. Barrett correctly deduced from the fact that an older shrine was renovated. However, he was wrong when he assumed that the decision about this renovation was taken in A.D. 990. From previous examples we know that old records were not necessarily re-engraved in the same year as the completion of the renovated temple. Occasionally it even took several decades before this was done or before the old inscriptions were discovered by accident as for instance at Tiruppaḷṭurai (p. 140), Kōṇērīrājapuram (p. 30) and Tiruviḍaimarudūr (pp. 161- 62). We suggest, therefore, that the renovation took place some time between A.D. 967, the year mentioned in the copied record of Kṛṣṇa III, and A.D. 990, the date of the Rājarāja I inscription. However, we can be even more precise, because extra niches have been cut out in the walls of the ardhamandapa, next to those for Gaṇeśa and Durgā. According to Barrett, the images in these added niches are examples of the third phase. This implies that they must have been added in the period in which the temple is supposed to

have been built. In that case we could expect a layout adjusted to the additional number of figures for which the villagers apparently had the financial means. Since this is not the case, we have to opt for a date in the early reign of Uttama Coḷa, since it became customary to erect ardhamaṇḍapas with three niches in the delta from A.D. 970 onwards, a practice which was applied to the shrine at Vriddhāchalam not too far from Tiruvāṇḍārkōyil and built ca. A.D. 980. The Pañcanāḍīśvara, therefore, came into existence between A.D. 967-980. We shall return to this shrine when discussing the kāl.

The gradual development from the temple style dominated by the Pallavas into that which is purely Early Coḷa can be observed most clearly in the monuments standing on the IA2a base. This sequence is illustrated in Fig. 44 (p. 221) and in the left column of Fig. 46 (p. 227). It runs as follows:

Tiruvāmattūr	→	Erumbūr	→	Grāmam	→	Bāhūr	→	Tiruvāṇḍārkōyil
IA2a		IA2a		IA2a		IA2a		IA2a
uninterrupted vari		no vari		no vari		no vari		a Coḷa vari
no niches, but holes		holes in Vim. but not in AM		holes in Vim. niches in AM		niches in Vim. niches in AM		niches in Vim. niches in AM
ca. A.D. 910		ca. A.D. 935		ca. A.D. 943		ca. A.D. 965		ca. A.D. 967- 980

The development of the typical Coḷa base — illustrated in Fig. 45 and in the right column of Fig. 46, p. 227 — is disturbing in one aspect only: the presence of an uninterrupted vari on the Tirutiṇḍīśvara at Tiṇḍivanam built at the same time as the shrine at Kīlūr, which has the proper Coḷa vari, and after the kōyil at Kīliyanūr from ca. A.D. 940, showing the same narrow fascia.

The *Tirutiṇḍīśvara at Tiṇḍivanam* (Pls. 51 and 69a-b; appendix 13, no. 15). The vari of this temple which runs on under the niches, is very old. Its ornamentation is even stranger. It has a pronounced vertical fascia decorated with a diamond-shaped motif. The lotus petals also obviously belong to another "family" than that used by the Coḷa sculptors (cf. Pls. 38c, 43c). Under the vari is a continuous series of charming panels which start on the southern side but stop half-way the western wall, as if the sculptor was interrupted in his work. All this stands on a IB1 adhiṣṭhāna which supports a II-3-b vimāna. In view of this layout, the attribution of Balasubrahmanyam merely on the basis of one Rājakesari inscription, is rather inconvenient (p. 136), since we assumed that this kōyil must have been renovated from the vari upwards. Recapitulating the extraordinary features of this monument, these are:

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Tiruvāṇḍāttūr	→	Erumbūr	→	Grāmam	→	Bāhūr	→	Tiruvāṇḍārkōyil
IA2a		IA2a		IA2a		IA2a		IA2a
interrupted vari		no vari		no vari		no vari		a Coḷa vari
no niches, but holes		holes in Vim. but not in AM		holes in Vim. niches in AM		niches in Vim. niches in AM		niches in Vim. niches in AM
ca. A.D. 910		ca. A.D. 935		ca. A.D. 943		ca. A.D. 965		ca. A.D. 967-980

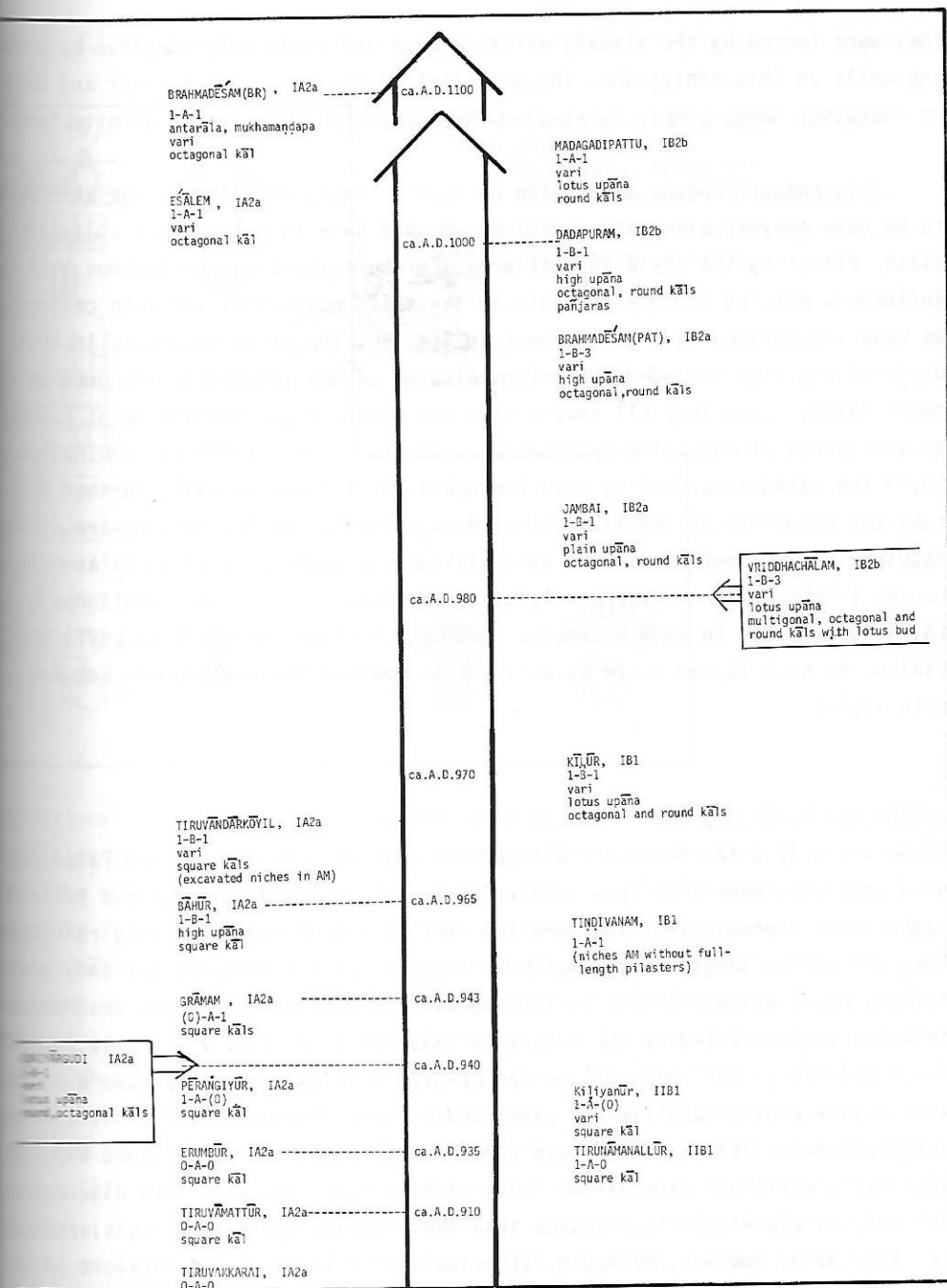
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1. its II-2-3 vimāna which is an anomaly in South Arcot if it was raised in the middle of the 10th century (Fig. 27, p. 96);
2. its unfamiliar vari which is a regional aberration (map 10);
3. the superstructure which is plain, whereas part of the lower portion is beautifully decorated.

These facts indicate that the base of this koyil was built by people from outside the area and that they left in a hurry. The monument was only completed much later. In the middle of the 10th century, the obvious aliens in this area were the armies of Parāntaka I and Kṛṣṇa III. From the shrines at Erumbūr, Tirunāmanallūr and Grāmam we know that at that time, temples were erected under the patronage of Parāntaka I or one of his generals, according to a known delta idiom. So, we may safely assume that the initiative for the construction of the Tirutiṇḍīśvara was taken by Kṛṣṇa III, probably for the same reasons which prompted Parāntaka I to raise shrines in this area. It is known that between A.D. 940-950 or A.D. 945-955 this part of the Coḷa territory was conquered by Kṛṣṇa III. The records engraved on the monuments in this area during and after that period mention — rather arbitrarily — either the regnal years of Kṛṣṇa III or of Parāntaka I, indicating that the district changed hands continually and that it was uncertain who exactly was ruling this region. This resulted in a chaotic enumeration of names and years when studied in time and space perspective. Under such conditions it is unlikely that the foreign architects remained in this area for a long period. They had probably left by A.D. 955 without having been able to complete their job. An indication that circumstances turned in favour of the Coḷas again, is the typical Coḷa layout of the shrines at Kīḷūr and Bāhūr, raised between A.D. 960-980. Here the 1-B-1 type is introduced. The unfinished koyil at Tiṇḍivanam was probably completed at about the same time. However, the builders were forced to erect walls on a layout which was completely unknown to them. In addition, the ardhamāṇḍapa must have been too short to accommodate the niches customary in the Coḷa style. In order to decorate the recessed wall-space — inherent to a II-3-b vimāna — in a satisfactory way, they selected the pañjara which at that time had run its full course of development in the delta.<sup>9)</sup> Moreover, they had to adapt the design of the niche to the short walls of the ardhamāṇḍapa. This reminds us of the situation at Pēraṅgiyūr, where the same unadorned niches were applied, i.e. half-size niche-pilasters without the proper frame of two full-size pilasters (p. 220). It is only in the koyils at Kīḷūr and Bāhūr that we meet the full-fledged Coḷa niche for the first time. We believe that the builders of the Tirutiṇḍīśvara would have used the same mature design if they had known it. Under the circumstances



46. Dual development of temple architecture in South Arcot in the 10th century. Pallava influence is illustrated by the preference for a IA2a base and the absence of niches and vari (left column). Cola influence is demonstrated by the introduction of adhiṣṭhānas belonging to types IIB1, IB2a or IB2b, niches and a vari (right column).

they were forced by the already existing base and could only continue by erecting walls on this adhiṣṭhāna. The architect of the monument at Kīṭṭūr and Bāṭūr, on the other hand, simply carried out the customary Coḷa rules of architecture.

This rather lengthy discussion of such a simple moulding as the vari proved to be nevertheless extremely useful as we were able to establish a cultural clash effecting the style in this area. Furthermore, it became obvious that Coḷa influences entered South Arcot only in the third quarter of the 10th century. We have illustrated this development in Fig. 46. The other monuments in this district are also included. Unfortunately, we cannot yet settle the problem of their dates, since they all have a vari and — except for the shrine at Eśālem — an adhiṣṭhāna of which the two lowermost layers represent the IB combination. So, in the paragraphs dealing with the upāna and the kāḷ we shall further discuss the monuments at Jambai, Eśālem, Madagadipattu and the Pātāleśvara at Brahmaḍēśam. The Brahmeśvara at the same village was wrongly dated by Balasubrahmanyam in the reign of Rājarāja I, for it displays the style of Kulottuṅga I (A.D. 1070-1120). In some respects, however, it resembles the Śiva koyil at Eśālem. As such it can serve as a mirror to reflect the differences between both styles.

### 3.4.3. *The Palar region.*

There are only a few monuments without the typical Coḷa vari in the Palar region (map 10). When this type of vari is absent we are dealing with a Pallava temple (see appendix 15). However, the vari as a continuous moulding running along the entire length of the walls is another Pallava feature. The only non-Pallava koyil without a Coḷa vari is located at Mēlpādi (M), where the Somanātheśvara was renovated by the orders of Rājarāja I ca. A.D. 999 (Table D, p. 222). The Coḷeśvara at the same village was erected as a paḷḷippaḍai around A.D. 1000 with a vari and, in addition, a padmabandha on it. The construction of the Bilvanāthesvara at Tiruvallam (T) not far off, was completed before A.D. 985 and also has a vari, but without the lotus petals (see Fig. 47). This discrepancy can only be explained if we assume that the vari was optional in this area until ca. A.D. 1000. However, we would rather believe that the Somanātheśvara is a scrupulous copy of the original shrine. This still leaves the question as to when the vari, interrupted by niches, was first applied in this old Pallava territory. The date of the Bilvanāthesvara is unknown. The Sokkeśvara at Kāñcī has a similar vari and was erected ca. A.D. 870 according to Balasubrahmanyam. As the

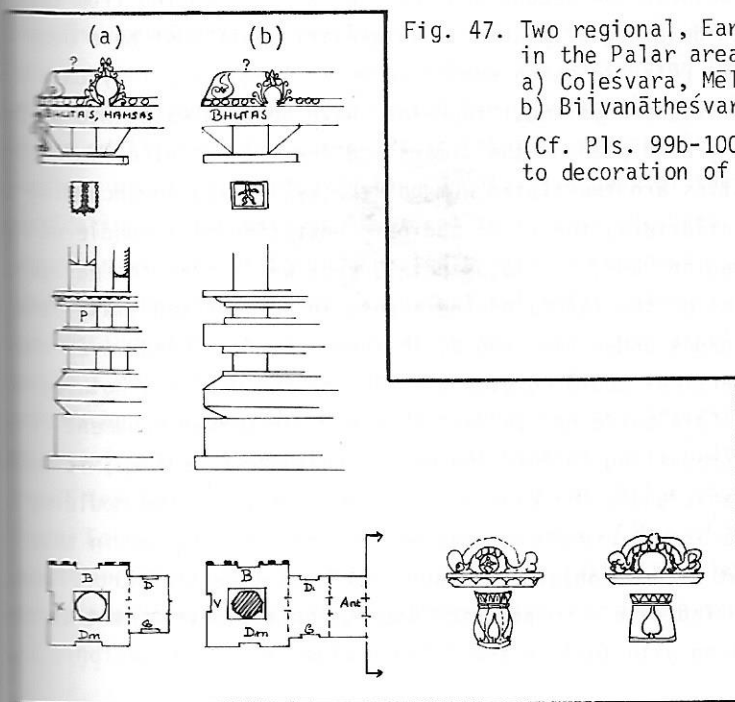


Fig. 47. Two regional, Early Coḷa variants in the Palar area.  
a) Coḷeśvara, Mēlpādi;  
b) Bilvanātheśvara, Tiruvallam.  
(Cf. Pls. 99b-100 with regard to decoration of kāl.)

scriptural evidence is absent, we can only base ourselves on the style which indicates that the temple was built at the earliest in the time of Rājarāja I. Now, the supposedly older form of the vari, the so-called footboard vari (N in appendix 15), is present in the shrines at Takkōlam, Brahamadeśam, Tiruttāni, Veḷachchēri, and Tiruvanmiyūr. The first three monuments carry inscriptions dated before A.D. 900. All these temples have niches in the vimāna and in the ardhamandapa and must therefore be younger than A.D. 870, except the koyil at Takkōlam which has the unframed cut-out devakoṣṭhas. The late dates suggested for the small shrines at Veḷachchēri and Tiruvanmiyūr might indicate a stubborn, regional preference for the footboard vari (N), especially when this appears over a IA2a base. Although we have observed a rather slow appearance of the Coḷa vari (vI) in South Arcot, a different development in the Palar region should not be excluded. So we shall first review the monuments listed in Table D (p. 213) and indicated with N or simple v in appendix 15.

*The Jalānātheśvara at Takkōlam* (appendix 15, no. 10).

The groundplan of the vimāna is a square as is the case of the other monuments

with an interrupted vari. The niches are of the "cut-out" variety and the vari is only interrupted between the second and third pilaster counting from the corner. Two records mention a regnal year of a Rājakesari. This must have been Āditya I, because they refer to high regnal years consequently they date the A.D. 892 and 894. The stone koyil must therefore have been in existence at that time. Apart from the ground-plan of the vimāna and the cut-out niches, the other non-Coḷa characteristics are the fluted kumuda, the vyālis spaced according to the position of the pilasters, the round podigai consisting of a bundle of ribs held together by a median band, the lotus petals kept well under the palapaṇa, and the row of circles on the fascia of the kapota in between two small bands. Except for the bhūtagaṇas under the kapota, the enormous lion heads over the kūdus and the tiny vertical moulding over the ribs of the podigai, nothing reminds us of an early Coḷa building. In case this well-preserved monument is typical for the style prevailing in this region during the 9th century, it could mean that the bhūtagaṇas under the kapota, the śiṃhamukha, and the moulding over the ribs in Coḷa architecture were copied from earlier temples in this area. The five cut-out niches containing images of Gaṇeśa, Dakṣiṇāmūrti, Viṣṇu, Brahmā and Durgā then indicate the advanced iconographical development in the Palar area in comparison with that in the Coḷamaṇḍalam.

*The Candramoulīśvara at Brahmadeśam (N.A.) (appendix 15, no. 11)*

This sandstone monument carries inscriptions from the days of Āditya I, the earliest one dating from A.D. 890. The building must therefore have been in existence before A.D. 890. It was never renovated and its style reminds us of the Kailāsanātha at Uttaramallūr (A.D. 796-846), except that the latter displays an almost full-fledged niche, framed by slender pilasters.<sup>11)</sup> We are inclined to believe that the Candramoulīśvara represents a more developed stage in a process which started at Māmallapuram, i.e. the realization of the niche. Comparing the niches in the Kailāsanātha at Uttaramallūr with those in the Candramoulīśvara, we notice that the small base of the niche-pilasters in the former are connected under the niches in the latter, thus creating the foot-board vari. Since we do not know the decoration of the Kailāsanātha because the plaster on its brick walls has disappeared, we cannot be sure that the makaratoraṇa over the niche of the Candramoulīśvara is a new feature. The profile of its podigai certainly is. It is slightly curved and has the vertical moulding. The building strikes us as an example of an independent regional style and of a period in which another solution was found for the niche-cum-vari problem more or less simultaneously in the Kāverī delta a few hundred kilometres further south. The architects of both areas tried to reshape the podigai and the niche, departing



from old Pallava concepts. Five niches seem to have been the northern norm.

*The Vīraṭṭaneśvara at Tiruttāni* (Pl. 70; appendix 15, no. 12)

This shrine was built in or around A.D. 903, according to one of its records. It resembles the Jalanātheśvara and the Candramoulīśvara in many respects. It is the smallest of the three but it has the same simple, square layout. The complete prastara, including the corbel, is a copy of the Jalanātheśvara. The application of the vari is identical to that on the Candramoulīśvara. The makaratoraṇas are all different and indicate an independent sculptural style. Apparently, the shape of this architectural detail had not yet been fixed. So we can conclude that thirty years after the first Coḷa architects had started to design a new type of temple in the Kāverī delta, none of the new developments had reached the northern province except that the inscriptions were now dated in regnal years of Rājakesaris and Parakesaris. This cultural isolation or regional independence, does not only apply to the Palar region, but also to South Arcot. Especially the presence and resemblance of the niches in the ardhamanḍapa in both North and South Arcot is striking. The full-size pilasters normally flanking niches are absent in the Vīraṭṭaneśvara as well as in the monuments at Pēraṅgiyūr and Tiṇḍivanam (Fig. 46, p. 227).

*The Daṇḍapāṇīśvara at Veḷachchēri* (appendix 15, no. 13).

This shrine is dated wrongly by both Balasubrahmanyam and Barrett who attributed it to A.D. 961 on the basis of a vague record of Madiraikonda Rājakesari. Moreover, the style of the sculptures was supposed to be that of the period of Uttama Coḷa. However, the temple as well as its images are too small for such a stylistic statement. The present, standing figures are squeezed into niches apparently meant for seated figures. The makaratoraṇas are flattened under the pressure of the uttira over them in the same way as for instance in the shrine at Nangavaram, built in a period when the experiments with the makaratoraṇa were hardly finished in the south. The corbels are identical to those at Tiruttāni and Takkōlam, and the same applies to the position of the vari. We, therefore, suggest that this koyil was, like the previous one, built around A.D. 900. Since the Vīraṭṭaneśvara at Tiruttāni has an elephant's back śikhara and the Daṇḍipāṇīśvara a square roof, we believe that the Rathas at Māmallapuram stood model for both shrines at least in the construction of their roofs.

*The Tripurasundara Amman shrine in the Vedapurīśvara at Tiruvanniyūr* (appendix 15, no. 14)



The layout of this vimāna and the foot-board vari of this temple are typical of the 9th century and give the building an older appearance than its actual date (A.D. 1017), mentioned in an inscription on the walls of this tiny monument. Its angular podigai is the only element in which it differs from the group of I-1-a/1-A-1 koyils built before the end of the 9th century or just around A.D. 900. We do not believe that the idea of the foot-board vari could persist that long, especially since the proper Coḷa vari was already applied on the shrine at Paramēśvaramaṅalam not far south of Tiruvanmiyūr. In view of the fact that the vari interrupted by niches was even adopted on the temple at Tiruvallam, located on the border of the Coḷa empire and definitely raised before A.D. 985, we may safely assume that the foot-board vari on the Amman shrine can be explained as an anachronism, for which we suggest the following solution. An Amman shrine can only be erected in the compound of an already existing Śiva koyil. The present Vedapurīśvara is a modern building. Because the Amman shrine existed already in A.D. 1017, an older Śiva koyil must have been located on the spot of the present Vedapurīśvara. The original Śiva shrine must have been similar to those at Takkōlam or Tiruttāni, and the architecture of the Amman shrine must have copied the features of this older shrine thus duplicating a monument which no longer exists.

*The Bilvanātheśvara at Tiruvallam* (appendix 15, no. 16).

This building has the layout characteristic of the temples constructed in the region until the 11th century. It has a form which lies in between the koyil at Tiruttāni and that of the Coleśvara, the paḷḷippaḍai at Mēlpādi. It differs from the first in the vari and the podigai. With the latter it has almost everything in common except the lotus petals on the vari, the shape of the kāl and the rearing vyālis on the palagais. The number of monuments with a IA2a base and an interrupted, Coḷa vari is too small for another conclusion than that the Bilvanātheśvara was built between A.D. 900 and A.D. 1014.

*The Sokkeśvara at Kāñcī* (Pls. 71a-b; appendix 15, no. 24).

In view of the above it seems impossible to date the Sokkeśvara at Kāñcī — with its fully developed Coḷa vari — as early as A.D. 870, as suggested by Balasubrahmanyam. We shall, therefore, now draw attention to some of its most remarkable features. This koyil has a I-1-b vimāna whereas the others belonging to the group just discussed all belong to type I-1-a. Moreover, its podigai is T-shaped, the profile of its kapota is curved, the band of circles adorning the kapota is carved on the slanting part above the plain vertical moulding, the

makaratorāṇa over the vimāna niches is replaced by a kapota and there are kar-  
makuṭṭis on the four corners of the grīvā platform as in almost all  
rathas at Māmāllapuram.

The presence of a Parakesarivarman record dated in the 15th regnal year  
can best be explained by assuming that an old engraved stone was incorporated  
into a more recent building. The inscription on the present walls of the temple  
should definitely not be taken as a record of Vijayālaya. The appearance  
of the Sokkeśvara strikes us as most original (Pls. 71a-b). As far as we know  
the remarkable makaratorāṇas were never repeated in this or in any other area.  
Basically, the differences can, however, be reduced to a few changes in the  
podigai, the niche decoration, the profile of the kapota, and the application  
of the lotus on the uttira. These aspects will be discussed in the last para-  
graph of this chapter, for they are characteristic of monuments built in the  
Middle Coḷa period. One aspect should, however, be pointed out here, viz. that  
the building stands on an upāna. The shrines listed in appendix 15 can be di-  
vided into two groups, the first consisting of temples without a proper upāna,  
the second consisting of monuments standing on a raised platform or on a plate  
decorated with lotus petals. The presence of an upāna in the Sokkeśvara seems  
to coincide with the appearance of the T-shaped podigai in the Palar area.  
Whether this is a characteristic combination of the entire region is a question  
that will be taken up in the following paragraph.

#### **4. Composition of the upāna**

##### **4.1. Typology.**

The upāna is the plinth on which a temple stands. It is a thick layer placed un-  
der the adhiṣṭhāna and is usually a few centimetres wider. The ground around  
temples usually rose considerably in the course of time, and then the upāna was  
the first layer to disappear from view. Consequently, it is often impossible to  
determine whether or not a monument stands on an upāna. In itself this is not  
disastrous, for in principle every shrine stands on such a plinth, but it is  
important to know what it looked like. If it is a straight, undecorated granite  
layer, or a row of bricks, it is of no interest. However, when it is decorated  
it can be used to determine the age of the temple it supports, though only to  
a certain degree as we shall see.

Appendix 5, aspect 2, gives the five upāna variants distinguished by us. Apart from the distribution of the vari map 10 shows the upāna variants 2, 3 and 4. All temples not indicated by symbols representing these three variants, have either an undecorated upāna (variant 1) which is not included in map 10, or the plinth has disappeared into the ground.

Variant 2 is the Pallava upāna. The Pallava sthāpatis were the first South Indian architects who obviously enjoyed embellishing these uninteresting plinths. They literally raised the upāna to great heights and divided the central layer into panels, alternating with narrow strips of scrolls, as well as elephants and lions, which give the impression of carrying the building on their necks (Pl. 72). Variant 3 is an uninspired version of the Pallava plinth. It corresponds with version 2 in height and shape as well as in the division into panels, but otherwise it remains bare, except for a single panel on the corner. Variant 4 is a somewhat overdressed version of variant 1. Over the bare granite plinth a padmabandha has been added, a phenomenon which always occurs in association with a lotus frieze above the straight jagatī. Variant 5 is a combination of variants 3 and 4 but it does not appear in Early Coḷa architecture; it occurs in monuments built after the death of Rājārāja I at Tirukkoyilūr (appendix 13, no. 24), Kāñcī and Tiruvadandai (appendix 15, nos. 25-26).

Since so many upānas are no longer visible, we cannot classify a particular building as an anomaly in a distribution-pattern. So, we shall only deal with those few temples of which the upāna is still visible.

#### 4.2. Distribution of the upāna variants.

Variant 1 occurs everywhere, except in those areas indicated on map 10 with vertical lines. Variant 2 occurs only once viz. at Bāhūr (B) (Pl. 72c). The other examples of this type of upāna occur in Pallava monuments (Pl. 72a). The Kedaresvara at Uttaramallūr (U) also has this plinth, but with a typical Coḷa IIB1 adhiṣṭhāna over it. It cannot be asserted whether we are dealing with an old Pallava upāna on which a Coḷa base was placed later on, because the upper part of this koyil is new. In view of the fact that a lotus-base was applied for the first time under a shrine in South Arcot in A.D. 934, viz. at Tirunāmanallūr, it seems indeed likely that the Kedaresvara further north was renovated at least twice, first in the Early Coḷa period from the Pallava upāna upwards, and again in modern times from the Coḷa adhiṣṭhāna upwards (Pl. 72d). The high upānas under the temples at Dadapuram ((D) Pl. 72d), Tirumangalam and under the Amman shrine at Gaṅgaikoṇḍaḷapuram (G) — the last two north of

the undivided Kāverī and Coleroon respectively — are all decorated according to the Pallava tradition.

The plain, high plinth, variant 3, occurs infrequently in each district; along the Kāverī from west to east at Goburapatti (Go), Kōvilāḍi (Ko), Tiruvaiyāḍi (Tv) (twice), Tiruvalaṅguḷi (Tg), Coḷapuram (C) and Tirukkoḷlikāḍu (Tk); in South Arcot in the Pātāleśvara at Brahmadeśam (B) and in the Viṣṇu Perumal at Tribhuvana (Tb); in the Palar region at Tiruvadandai (Tv), in the Tirucacchi-mayana shrine of the Ekambaranātha at Kāñcī, and at Kūḷambandal (Kl).

Finally, variant 4 is mainly found in the centre of the delta, although even there it must have been optional (appendix 12). Outside the delta it was applied in the monuments at Kīḷappaḷuvūr (Ki) and Mēlappaḷuvūr (M) near Kilaiyūr, in the Melakkadambūr at Nārttāmalai (Na), and at Udayārgudi (U), Vriddhāchānam (V), Jambai (J), Kīḷūr (K), Madagadipattu (M) and Tiruvakkarai (Tk), all located in South Arcot. In the Palar region this type of upāna was also common, since it is found in the koyils at Kāvanṇandālam, in the Sokkeśvara at Kāñcī, at Tiruvoyyūr, Tirumaliśai, and at Tirumullaivāyil (appendix 15). Variant 4 was applied for the first time under one of the Sapta Sthānas, i.e. at Tiruchatturai (A.D. 883, Fig. 39, p. 208). It was used incidentally under shrines built between A.D. 900-970 and became popular towards the end of the 10th century (appendix 12). It cannot be used as a criterion for dating temples, since the only conclusions that can be drawn from the above are that the concept existed since A.D. 883, and that the decision whether or not to apply it depended on the architect.

As to the occurrences of high plinths (variants 2 and 3), the possibility cannot be excluded that all vimānas on a flat upāna are placed on a raised platform — no longer visible. Since this complex moulding belongs to the Pallava idiom and since both the 9th century buildings in the Coḷamaṇḍalam and those raised after A.D. 990 show Pallava features, it is risky to suggest a date of a koyil on the basis of its platform moulding. This all the more so as the shrine at Tiruppurambyam displayed a rather nicely decorated high upāna under its pañjaras (Pl. 40) as early as A.D. 910-925 (pp. 121-23, appendix 8, no. 3). Problematic monuments on a high plinth in the Kāverī area are located at Kōvilāḍi and Tirukkoḷlikāḍu. All other shrines can be firmly dated after A.D. 990. We shall review these two buildings after we have dealt with the monuments on a high upāna in the other districts (appendices 13 and 15).

Before starting our discussion of the upāna variants 2 and 3 we should like to pay attention to the elephant's back at Tiruppachchiyūr. It stands on a plain, low upāna (variant 1). It could, therefore, be older than the other monuments



in the Palar region with lotus upānas. However, inscriptional evidence seems to militate against this early date so a careful review of its ornamental features in relation to those of the other shrines seems to be appropriate.

#### 4.3. Chronology of some temples based on the shape of their upāna.

*The Vāceśvara at Tiruppachchiyūr* (appendix 15, no. 30).

We shall discuss the Vāceśvara in relation to four other shrines. These are in the first place the monuments at Tennēri (no. 17) and Kūḷambandal (no. 29) because all three have two special features in common, viz. there are lateral niches on either side of the central koṣṭhas of the vimāna and the vari is not interrupted by these lateral niches.<sup>12)</sup> The other two koyils, at Tirumullaivāyil (no. 31) and Tiruvoṟṟiyūr (no. 27), were selected because they are located near the Vāceśvara and because all three temples are tritalas with at least one apsidal component in the structure of their vimānas.

The Vāceśvara at Tiruppachchiyūr is crucial in demarcating the transition of the Early Coḷa style into that of the so-called Middle Coḷa period, for the Kaṇḍaliśvara at Tennēri is still designed according to the Early Coḷa, i.e. Śembyan Mahādevī idiom (A.D. 995), and the Gaṅgaikoṇḍacoḷeśvara at Kūḷambandal on the other hand, represents the Middle Coḷa style since it was built half-way the reign of Rājendra I (ca. A.D. 1034). From appendix 15 it can further be concluded that the monuments at Tirumullaivāyil and Tiruvoṟṟiyūr also have been drawn into the discussion, because they are supposed to have been raised in the same period (A.D. 995-1034). The first is thought to have been completed in the early days of Rājarāja I.<sup>13)</sup> The latter was, however, designed in the days of Rājendra I, but when exactly is not known, as the inscription mentioning the construction of the shrine keeps silent about the year, though it is very explicit about the architect and the building materials used.

In Fig. 48 these five monuments have been arranged according to the principle of an increasingly complex layout. The Vāceśvara at Tiruppachchiyūr is a rather spectacular building. Its ground-plan is rectangular, its superstructure apsidal and two storeys high. The architect had to solve the problem of how to divide the relatively long walls of the first tāla supporting the apsidal roof, while the sthāpatis of the monuments at Tirumullaivāyil and Tiruvoṟṟiyūr had to solve the problem of how to divide the apsidal wall of an elevation back in a satisfactory way. The architect of the Vāceśvara chose the blind niche, a concept frequently found in temples constructed in the Kāverī delta (cf. the ardhamandapa of the Gomukteśvara at Tiruvādūturai and the Uttara

at Tiruvaiyāṇū). This concept was in due course complemented by a new design, applied on the walls of the Rājarājeśvara at Tañjāvūr (Pl. 73), viz. the kumbhapañjara consisting of a single pilaster placed in a kumbha or large pot. We mention this because the architects of the two elephant's backs resorted to this ornament when decorating the otherwise empty wall-spaces in the recesses, although they forgot (?) the kumbha or pot. This seems indeed the easiest way out though, in a sense, it is a deformation of the formerly blind niche.

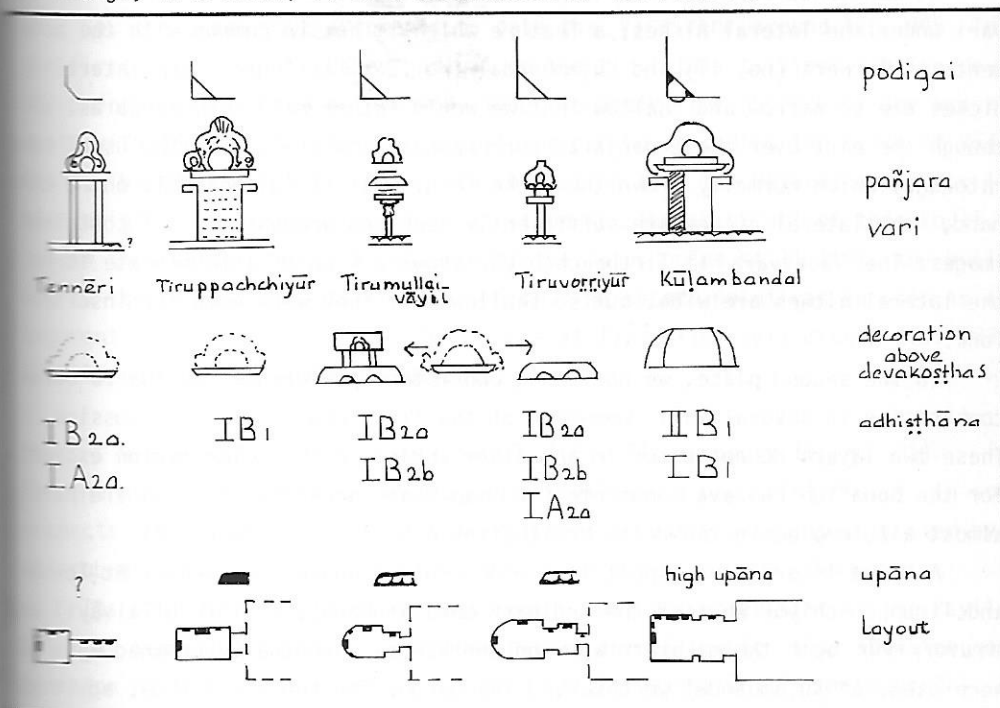


Fig. 48. Tentative chronological sequence of large vimānas in the Palar region built between A.D. 995 - 1034.

In view of this reduction of the blind niche into a solitary pilaster, the Vā-  
rājeśvara must be older than the nearby apsidal vimānas. An inscription on a  
slab in the pavement of the compound, dated in A.D. 1014, indicates that reno-  
vation must have taken place after this year. Balasubrahmanyam assumed that this  
happened during the reign of Rājendra I, although the oldest record on the walls  
of the present building dates from A.D. 1070. Its information is of a tax-tech-  
nical nature only. A reconstruction of the temple could then have occurred be-  
tween A.D. 1014-1070. The modesty of the local inhabitants of Tiruppachchiyūr



not to report this fact may be commendable, but it is unfortunate for us, since we should like to prove that, at least part of the present building was completed before A.D. 997, a year mentioned in a second inscription on the slab referred to above. The only possible answer to this problem is that the old Rājarāja I records were engraved on the walls of the ardhamaṇḍapa or the mukhamaṇḍapa which must have collapsed in the course of the 11th century.<sup>14)</sup>

As mentioned before, this temple is striking because of the presence of a *vari* under the lateral niches, a feature which it has in common with the monuments at Tennēri (no. 17) and Kūḷambandal (no. 29). At Tennēri the lateral niches are so narrow and shallow that we would rather call them *pañjaras*, although the part over these *pañjaras* corresponds completely with the usual *makaratorāṇas* which normally crown the niche (Fig. 48). At Kūḷambandal, on the other hand, the lateral niches are sufficiently deep and undoubtedly all contained images. The Vāceśvara at Tiruppachchīyūr shows a kind of intermediate form: the lateral niches are wide, but so shallow that they were used for inscriptions.

In the second place, we noticed a consistent preference for the IB base-combination in several wall segments of the five temples under discussion. These two layers do not occur in any other shrine in the Palar region except for the bonafide Pallava monuments (cf. map 7 and appendix 15), and are part of almost all temples in the delta built after A.D. 1000 (appendix 12).

A third interesting aspect is the decoration above the niches. At Tennēri and Tiruppachchīyūr we find the ordinary *makaratorāṇas*; at Tirumullaivāyil and Tiruvorriyūr both the *makaratorāṇa* and the *kapota*, eventually crowned by a *śikhara* were used. At Kūḷambandal we observed the canopy for the first time, admittedly only above the niche of Dakṣiṇāmūrti.

A fourth point is the absence of a high *upāna* or a lotus plinth in the Vāceśvara, whereas the *koyils* at Tirumullaivāyil, Tiruvorriyūr, Kūḷambandal and most later shrines have this plinth (appendix 15).

The most remarkable feature, however, is the changing shape of the *podigai*: while still angular at Tennēri, it becomes a regular T in the three *tritālas*, which is finally carved into a kind of drop at Kūḷambandal. Although this is not the right place for a discussion of the *podigai*, it is obvious that such an important change in the shape of the corbel, could hardly have been invented in the outlying provinces. Indeed, the T-shape appeared in the delta for the first time above the pilasters of the Rājarājeśvara at Tañjāvūr (Pl. 73). This large *koyil* was inaugurated in the twenty-fifth regnal year of Rājaraḥa I, i.e. A.D. 1010.<sup>15)</sup> It is not known when the first blue-prints were drafted, nor when the

Foundation stone was laid (pp. 165-67). If the first tala of the Vāceśvara was built with the T-shaped corbel ca. A.D. 997, the construction of the Rājarājeśvara must have been in full swing around that year. This does not contradict our statement in the previous chapter (p. 166), that after A.D. 985-990 the labour-force must have been pressing for work in the delta, causing Rājarāja I to commission a worthy project. We shall return to this point in the paragraph dealing with the podigai.

So, there are four arguments to date the Vāceśvara around A.D. 995. In the first place, the T-shaped podigai on the first tala tallies with the developments in the delta before A.D. 1000. Secondly, the absence of any experiments with the niches points to a building period preceding the reign of Rājarāja I. Thirdly, the IB1 base is an indication that the Rājarājeśvara, or its blue-prints, were the source of inspiration for the architect of this koyil, and in the fourth place, the absence of the lotus upāna still links the building to the older monuments in this region. The second point can be used as an argument against the dating of the temple at Tirumullaivāyil around A.D. 983, a building which we shall now discuss.

*The Śrī Masilamanīśvara at Tirumullaivāyil* (Pl. 74; appendix 15, no. 31).

In contrast to the previous temple, this koyil has a beautiful finish. In some respects the style of this monument indicates an early date, as suggested by Balasubrahmanyam (p. 324, note 13), but in other respects it does not.

Its base is not typical of this region, but characteristic of the koyils built by Śembyan Mahādevī (cf. appendices 12 and 15), which also show the combination of two variants in one building (cf. Tiruppugalūr, Tirumiyachchūr). A second characteristic of the temples in the delta which the shrine at Tirumullaivāyil displays, is the application of the octagonal and the round kāl next to the square shaft (map 11). In the third place the Śrī Masilamanīśvara shares with them the presence of sculptures next to the main devakoṭhas (map 13).

On the other hand, the T-shaped podigai is definitely not a hall-mark of the Śembyan Mahādevī style, nor is the kapota over the Dakṣiṇāmūrti niche, covered, moreover, by a śālā. The solitary pilaster crowned by a kapota-cum-kūṭu is also a feature alien to her style. Now the kapota itself is an element present on nearly all Pallava monuments in one place or another, usually on the walls of the superstructure, where they function as a canopy over the images in the śālās and kuṭīs.

The preferential treatment of Dakṣiṇāmūrti — the only sculpture under a similar canopy in the Śrī Masilamanīśvara — must have been a new and strictly

regional phenomenon in the Palar area, indicating a special attachment to this "God of the South" which seems to have spread gradually throughout Tamil Nāḍu. Nowadays, the fine features of many monuments have been destroyed by this originally simple projection which developed into an ugly portico. We have not noticed that this preference was already felt by the people in the delta during the reign of Rājarāja I. On the contrary, the Amman shrine in the compound of the Gaṅgaikoṇḍacoḷeśvara at Gaṅgaikoṇḍacoḷapuram demonstrates the opposite (Pl. 19a), for the kapota is here applied over the lateral niches in the walls of the ardhamandapa. So we are inclined to interpret the origin of the kapota over a niche as the result of an explicit, regional adoration of a particular deity in the Palar area. In the same way, we hardly find Liṅgodbhava images placed in niches of temples located in the Palar region, although it must have been an extremely popular manifestation of Śiva in the delta during the 10th century. As Dakṣiṇāmūrti was apparently not very popular in the Deep South, it is not surprising that kapotas are absent over his niches.

Another peculiarity of the koyil under discussion is the single pilaster carrying a kapota and over it a kūdu. This shape could be due to a shortage of wall-space. Plate 74 demonstrates that the two pilasters required for a paṇjam could never be placed between the full-length pilasters. As such, this phenomenon must be considered a playful preference in combination with inspiration from nearby older examples, or to a structural limitation. We now have to decide whether or not this koyil is a monument from the days of Rājarāja I. An inscription of A.D. 1015 on a pillar in the mukhamandapa states that the hall in question was built by Rājendra I. The vimāna must, therefore, have been in existence in that year. The lapse of time between the first endowment in A.D. 983 by Śembyan Mahādevī and the completion of the mukhamandapa in A.D. 1015 can be explained. For, in A.D. 983 it is stated that Śembyan Mahādevī had bought some land and had donated it to the temple. Since this record was only engraved at a later time (p. 234, note 13), we may assume that it took some years before the transaction had been settled. Furthermore, we are nowhere told that the queen had also given money to build a new shrine. It could well be that funds had to be provided by the proceeds of the recently acquired lands.

Another problem could have been that insufficient workmen were available in this area where building activities had been at a standstill for almost a century. Skilled craftsmen had to be provided by the queen's workshop or had to be trained first in the delta. Around A.D. 983 her atelier was fully employed (p. 160) so it is unlikely that a group of men was sent to the border regions. Ten years later, however, a shrine displaying the Śembyan Mahādevī style was

built at Tennēri, while the koyil at Tiruppachchiyūr was probably constructed five years afterwards, in which the new ideas produced in the blue-prints of the Rājarājeśvara were already incorporated. On the basis of these two buildings we may conclude that skilled craftsmen were now once more available in the Palar region. Therefore, the Śrī Masilamanīśvara could well have been built between A.D. 1000-1015. The shrine at Tiruvorriyūr is an almost true copy, indicating that the workmen were immediately employed again. It was, therefore, probably constructed between A.D. 1015-1020.

*The Varāha Perumal at Tiruvadandai* (appendix 15, no. 26).

In the preceding we have noticed that certain ideas originating in the delta, were either not followed up, or needed time to reach the outlying provinces. If the lotus plinth preceeds the design of the bare, high upāna in the delta, we may assume a similar sequence in the Palar region. The relatively late shrines at Tiruvorriyūr and Tirumullaivāyil stand on a lotus plinth. The architect of the Varāha Perumal exaggerated slightly by designing a high upāna of which the lowermost layer received the padma decoration. Another feature which the Perumal has in common with the two koyils just mentioned is the T-shaped podigai, which is a direct imitation of that invented for the Rājarājeśvara at Tanjāvūr. This implies that indeed all these shrines must have been constructed around A.D. 1000 or later. On the other hand, the Varāha Perumal could have been renovated from the uttira upwards, since roofs are prone to collapse. In that case the underlying parts, including the upāna, could be older.

The shrine has an awkward finish, from which nothing can be concluded. Nevertheless, we believe that the Perumal was not renovated, in view of its II-3-b layout which was dormant in the delta for a long time (Fig. 25, p. 92). It only returned with the construction of the shrine at Tirukkaḍaiyūr (A.D. 986-990). Leaving aside the Cāḷukya Tirutiṇḍīśvara at Tiṇḍivanam, the two temples at Dadapuram are the first examples of a reviving interest in this type of layout in South Arcot (Fig. 27, p. 96). In the Palar region the only monuments displaying the II-(3,4)-b design are the temples at Tennēri of A.D. 995, the upāna of which is not visible, that at Kūḷambandal of ca. A.D. 1034, which has the same bare plinth as the Perumal, and those at Tirumullaivāyil and Tiruvorriyūr, both with a lotus upāna and built after A.D. 1000.<sup>16)</sup> These four buildings do not only resemble the monuments at Dadapuram raised before A.D. 1006, but also the temple at Goburapatti of A.D. 990. A migration effect, i.e. a retardation of the new developments in the design of plinths as a consequence of distance, seems therefore likely. However, in that case we have to reject the views of Balasubrahma-



nyam. According to him this Perumal at Tiruvadandai belongs to the days of the great Coḷa. His opinion is based on inscriptions mentioning various names of an unknown prince, called Parakesarivarman alias Pārthivendravarman who took the head of Vīra Pāṇḍya. Two more titles (or other princes?) are recorded: Parakesari Vēndradhivarman and Ko-Pārthivēndradhivarman, who might have been a prince of the royal family and viceroy of Toṇḍaimaṇḍalam, engaged in efforts to recover the northern part of the Coḷa empire in the days of Sundara Coḷa. This assumption is based on the epitheton ornans "who took the head of Vīra Pāṇḍya" and furthermore on the presence on the base of a record from the 20th regnal year of Kṛṣṇa III or Kannaradeva, i.e. A.D. 959. This was a time of war, as is clear from the inscriptions, not exactly a period in which the construction of a large II-3-b vimāna could be expected. From A.D. 969 onwards a few even larger kōyils were erected in South Arcot which must have been liberated earlier than the regions further to the north. All these shrines, including that at Paramēśvara-maṅgalam not far south of Tiruvadandai, have the 1-B-1 design. So, even when we assume that an old kōyil was completely rebuilt not long after the war, we can only expect the II-2-b/1-B-1 layout, since that was the common type of those days. The monuments at Kīlūr, Tiruvāṇḍārkōyil, Paramēśvara-maṅgalam and Bāhūr confirm this statement, albeit that the vimāna design of the last is even more simple (appendix 10). Assuming a reconstruction of an older Perumal, we suggest that the kōyil was probably renovated in the 11th century, i.e. in the days of Rājendra I at the earliest.<sup>17)</sup>

*The Tiruaccekimayana shrine in the Ekambarānātha at Kāñcī* (appendix 15, no. 25). As far as we know, no inscriptions referring to this monument have come to light. There are a few records on the main temple but this is a modern building. So we visited this subshrine more or less by accident when we went to inspect the inscriptions on the main kōyil. As in the case of so many other monuments, this copied subshrine on its high bare upāna, also creates the impression of being a brand-new imitation in spite of its composition and details which show the Early Coḷa idiom. It was obviously built after it became customary to erect sanctuaries dedicated to lesser deities in the compound of the main shrine, i.e. after the reign of Rājārāja I. Although it was an ancient practice to construct chapels for the aṣṭaparivāradevatās or the sapta-mātṛkās long before the Coḷas came to power in the Muttaraiyar area, it should be remembered that these were tiny buildings. However, after Rājārāja I full-size sanctuaries for other deities were built in the compounds and, as such, this should be considered a new practice. We shall return to this shrine when discussing the podigai.

*The Pātāleśvara at Brahmadeśam (S.A.)* (Pl. 75; appendix 13, no. 19).

This is a 1-B-3 structure on a high plinth, a combination of which there is only one other example in South Arcot, viz. the Vṛddhagiriśvara at Vṛddhāchalam (no. 17). However, the two buildings cannot be compared, for the quality of their finish differs too much (cf. Fig. 41b, p. 211). It would be like comparing an exquisite drawing-room chair with a rough kitchen-stool, for the Pātāleśvara misses the refined touch of the talented delta sculptors, who fashioned the temple at Vṛddhāchalam into such a striking monument. So from this point of view, the two monuments cannot be contemporary. However, in view of its layout, the Pātāleśvara cannot be older than the Vṛddhagiriśvara, as the concept of an ardhamandapa with three niches had at that moment hardly existed more than ten years and was always used in combination with the simple I-2-a vimāna (Fig. 35, p. 160). So the problem can be reduced to the question how much younger this monument could be. Since it stands on a bare plinth similar to that of the shrine at Goburapatti (ca. A.D. 990; appendix 12), where it might have been introduced for the first time, the Pātāleśvara could be dated after A.D. 990. Further, its rather large ardhamandapa narrows down the period to the last ten years of the 10th century, for we have noticed a tendency to reduce the size of the vestibule both in the delta and in the Palar region (Figs. 35 and 48) around the turn of the century. The two temples at Dadapuram, built before A.D. 1006, both having only one niche in the ardhamandapa, seem to indicate that in South Arcot, the ardhamandapa also became smaller. In our opinion it is unlikely that the architect of the Pātāleśvara would have deviated from such an obvious trend in the architectural development. So, we date this plain koyil between A.D. 990-1000.

*The Varadarāja Perumal at Tribhuvana* (Pls. 76a-b; appendix 13, no. 23).

Apart from the fact that this temple is a sāndhāra monument it is also remarkable on account of its layout. The walls of the ardhamandapa pass unnoticed into those of the vimāna without a false antarāla and the width of the hall corresponds with that of the vimāna. A further peculiarity is the absence of niches. The building shares all these features with the shrine at Pennadam (Pl. 77; no. 10) not yet discussed. The complete darkness which would have prevailed in the ambulatory gallery of this Viṣṇu temple, is slightly relieved by a few small holes in the walls through which some light enters. In the monument at Pennadam these holes have become full-fledged windows similar to those in several Cāḷukya monuments (Pls. 5-9). These windows are placed in a projecting part of the wall. The whole concept strikes us as more mature than that at Tribhuvana.



Inscriptions dating from the twelfth regnal year of Rājarāja I (i.e. A.D. 997) were found on slabs in the compound of the Perumal, but the earliest record on the temple walls dates from the fifth regnal year of Rājendra I. This implies that the monument was raised before ca. A.D. 1017 or A.D. 1019, depending on the question in which year the reign of Rājendra I is considered to have started, for he was made co-ruler in A.D. 1012 and became king in A.D. 1014. It seems to us that another building containing the slab with the record of Rājarāja I of A.D. 997 was taken down after that year in order to create space for the Perumal.

The Perumal has an extremely high upāna on which a beautifully decorated lotus adhiṣṭhāna is placed. On account of the height of the upāna, panels have been inserted between the vari and the vyāli frieze at eye-level. Perhaps these panels were meant to have the same educational value as the devakoṣṭhas and karatorāṇas which are absent in this case. The bareness of the walls could possibly be explained by inability on the part of the sculptors to decorate such a very large vimāna — the first sāndhāra in the Coḷa territory after the Koranganātha at Śrīnivāsanallūr (A.D. 875-880). On the other hand, Vaiṣṇava iconography may not yet have been sufficiently developed to fill the wall space with an adequate number of images, since Vaiṣṇavism was still a religion of minor importance in those days. (Cf. note 17, p. 318.)

Whatever the reason for the absence of sculptures may be, the quality of the small panels links this monument with two others, located at Puñjai and Tiruveṅkādū (appendix 11, nos. 25 and 27 respectively; Pls. 60a-b, 78a-b) and rebuilt in the days of Rājarāja I. All three koyils have vyāli friezes showing the unusual combination of galloping elephants and long-nosed lions, which in the case of the Perumal alternate with seated lions and animals with human faces.<sup>19)</sup> The panels on the Viṣṇu temple in which temples are depicted, show the same peculiarities as displayed by the panels on the other two koyils. Since the rest of the Perumal is plain and unadorned we are inclined to assume that the artist of the shrines at Puñjai and Tiruveṅkādū was asked to add some spirit to the otherwise deadly appearance of the building. Earlier on we suggested that the temple at Tiruveṅkādū was completed between A.D. 990-1000 (pp. 184-85). The building history of the Perumal suggested above seems to suit this date. The proposed year of construction of the Naltunai Īśvara at Puñjai between A.D. 990-1000 also corresponds with the assumed activities of the unknown artist at Tribhuvana (pp. 182-83). On studying the sculptures on the shrines at Tribhuvana, Tiruveṅkādū and Puñjai we observed the same workmanship as on the renovated shrine at Vēdāraṇyam (appendix 11, no. 29, Fig. 54c, p. 305). Here ancient

Inscriptions were removed from the walls and copied on the pillars surrounding the temple. They are dated as late as A.D. 1007. So, the renovation of this shrine probably took place after A.D. 1007, and was carried out by the same workmen as at the three monuments just discussed. In view of all this the four sanctuaries are closely related in style and date from about the same period.

*The Śiva koyil at Kōvilāḍi and the Agnīśvara at Tirukkoḷḷikkāḍu* (Pls. 80-81). Both these temples were renovated and placed on a high plinth. This happened at a much later date than generally suggested (appendix 9, no. 26; appendix 11, no. 28). The Śiva koyil is supposed to date from the middle of the 10th century. In view of its I-A-1 lay-out and — even more — its Muttaraiyar-like I-1-a vimāna a reconstruction around A.D. 950 is only possible if we assume that the architect tried to build a faithful copy of an older, collapsed shrine. However, in that case the shrine should not have been placed on a plinth, and the pilasters should not have been octagonal as was customary in the style of the Muttaraiyars (map 11). If the renovated temple cannot be a copy of an older one, at least a I-B-1 layout could have been expected around A.D. 950 (appendix 10), or more likely it should have had the same characteristics as the neighbouring and contemporary shrines at Tirukkaliṭṭattai and Tiruppalturai, both without an upāna (Pls. 54 and 56; appendix 9, nos. 19 and 21). This suggestion seems to be confirmed by the appearance of the koyil at Tirukkoḷḷikkāḍu, which is also a I-1-a/1-A-1 building on a high plinth. Its oldest inscription dates from A.D. 1006.

This last shrine must have been renovated in the course of which its size was considerably reduced, since the inscriptions have been copied in such a way as to make the epigraphist shake his head, for many were misplaced or became incomplete. The records of Kulottuṅga I (A.D. 1070-1120) were also mutilated, for they miss their florid introduction due to want of space. The building at Tirukkoḷḷikkāḍu, therefore, was obviously renovated after the Kulottuṅga I records were engraved. Since the Śiva koyil at Kōvilāḍi shares the high upāna and its layout with the shrine at Tirukkoḷḷikkāḍu — and displays the same coarse finish — it must also have been reconstructed in the last quarter of the 11th century at the earliest.

From the above discussion it became clear that our assumption with regard to the late introduction of the high upāna in Coḷa architecture is confirmed by additional, structural evidence. As we suggested that the appearance of the kāl

— whether or not in combination with panels — is part of this evidence we shall now turn our attention to these aspects, which show a strong regional preference for special shapes and combinations of shapes.

## 5. Composition of the kāl

The kāl or pilaster consists of many parts as aspects 10-18 of appendix 5 show. During the entire Early Coḷa period the upper elements are consistent in form. Only the shape of the shaft and the padma between the palagai and the kumbha — together called idaḷ or munai — show variation. The remaining parts only vary in their decoration. These aspects cannot be mapped because decoration depends on the assignment which a sculptor did or did not receive. Moreover, it is often completely obliterated due to frequent plastering or by the wear and tear of time, which gnawed away large chunks. So, we shall only pay attention to the distribution-patterns of the contours of the kāl and the occurrences of the kāl whether or not carrying blocks depicting nāṭṭya-penṣ or vyālis.

### 5.1. Typology. 20)

The shaft always stands on a square pedestal. This does not look like an individual element when the pilaster is square, but when it is round, octagonal or polygonal, the pedestal definitely gives the impression of being an independent element. The square kāl was invariably applied by the Cāḷukyas and Pāṇḍyas. The octagonal kāl was frequently used by the Pallavas in addition to the square kāl and the Early Coḷas used the round and polygonal shape as well as the square and octagonal pilaster (Fig. 49). The round or polygonal pilaster is typical of Early Coḷa architecture at least when applied to the exterior of buildings (cf. appendix 3, Fig. b and map 11). In view of the predominance of the square kāl on temple walls throughout South India preceding the rise of the Coḷas, the introduction of the round and octagonal shape seems an innovation. However, the square, octagonal, round and polygonal pillar is a common feature inside mandapas at for instance Paṭṭadakkaḷ or Māmallapuram. Apparently, the Coḷas were the first to apply all four shapes as pilasters.

It should be pointed out that the application of a polygonal or a round kāl occurs always in combination with a square shaft and often with an octagonal pilaster. The shaft types can vary in one and the same temple. This can be

explained by the fact that a distinction is usually made between the pilasters on the ardhamaṇḍapa — mostly square — and those on the vimāna which can be subdivided into corner-kāls, half-niche pilasters and other kāls occurring elsewhere on the wall.

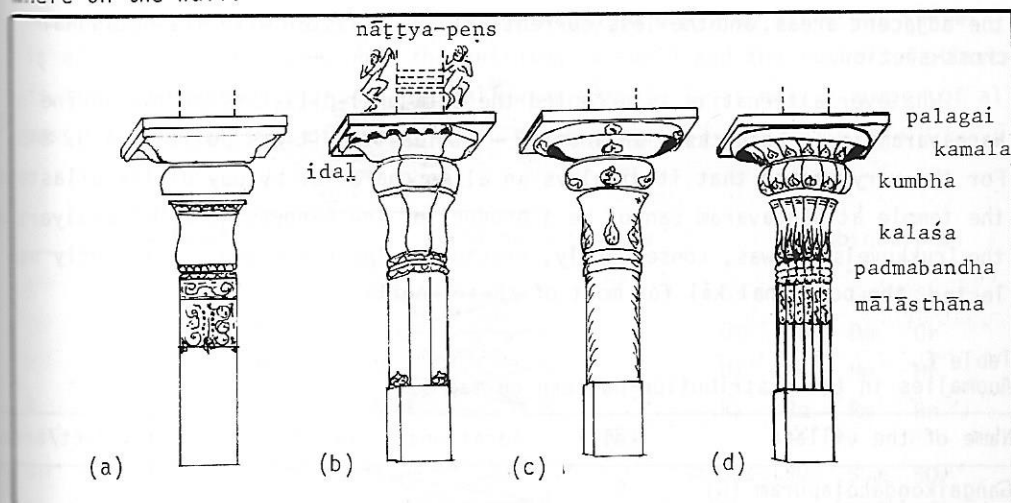


Fig. 49. Four types of Early Coḷa kāl. The Coḷa kāl is characterized by a pronounced, ogeed kalaśa and a constriction of the shaft by means of a padmabandha.

- a) square from base to palagai;
- b) octagonal between square base and palagai;
- c) round between square base and palagai;
- d) polygonal between square base and palagai;

In addition there exists a mixed form when the kāl is divided into square base, octagonal shaft, polygonal kalaśa, round kumbha and kamala.

## 5.2. Distribution of the kāl variants.

### 5.2.1. The Kāverī area.

Map 11 shows that Early Coḷa architecture is characterized by the octagonal kāl and occasionally occurrences of round and polygonal shafts. Square pilasters are common in the area south of the Sapta Sthānas; to the east of this group we occasionally find temples with square kāls, viz. at Gaṅgaikoṇḍaḷapuram (G), Kumbakonam (K), on the renovated monuments at Kōyildēvarāyanpēṭṭai (KP), Tirumayānam (T), Tiruveṅkāḍū (Tv) and Vēdāranyam (V) (cf. appendix 12, and Table E).

On the basis of this pattern there are two alternatives. In the first place, it could be that the entire Pāṇḍya-Irukkuveḷ-Muttaraiyar region, characterized by the square kāl, was eroded by the attractive force of the octagon,

creating patches of small areas with a square kāl along the Kāverī. This interpretation would imply that all temples with square pilasters in these areas are older than those with the round or octagonal shafts. The alternative view is that the architects of Āditya I could choose between the square kāl, common in the adjacent areas, and the less current Pallava pilaster with its octagonal cross-section.

Whatever alternative is accepted the octagonal pilasters on the shrine at Nangavaram is in both cases an anomaly — at least if it was built in A.D. 845. For the very reason that it displays an alien character by way of its pilasters, the temple at Nangavaram cannot be a product of the Pāṇḍyas, the Muttaraiyars or the Irukkuvēls and was, consequently, erected by the Coḷas who consistently selected the octagonal kāl for most of their koyils.

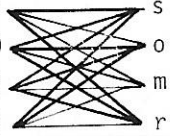
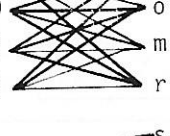
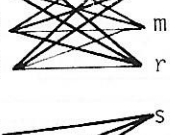
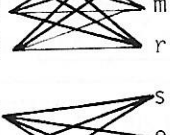
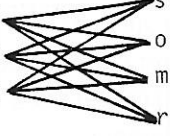
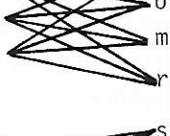
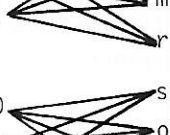
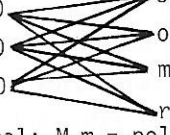
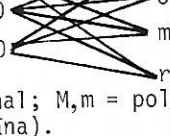
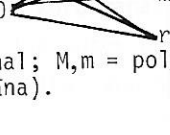
Table E.  
Anomalies in the distribution-pattern on map 11.

Name of the village	kāl	locational context	district/area
Gaṅgaikōṇḍaḥapuram (G)	S	round / octagonal (R) (O)	Kāverī area
Ramanātha Kōyil	S		
Kumbakonam (K)	S		
Kōyildēvarāyanpēṭṭai (KP)	S		
Tirumayanam (T)	S		
Tiruvēṅkāḍū (Tv)	S		
Vēdāranyam (V)	S		
Sōmūr	S		
Aḷḷūr, Tiruchchendurai	S		
Aṇḍanallūr, Kilaiyūr	S		
Āḷambakkam, Kumāravayalūr	S		
Perungudi	S		
Tudaiyūr	M		
Goburapatti	M		
Tirmangalam	M		
Chittūr	O	square (S)	Tri.
Nārttāmalai (Melak.)	O		
Tiruvāṇḍārkōyil	S	octagonal/ square	South Arcot
Madagadipattu	OR		
Tribhuvanam	O		
Paramēśvaramaṅalam	O	square (S)	Palar area
Mēlpādi	OR		
Tiruvadandai	OR		
Tiruvorriyūr	OR		
Tirmullaivāyil	ORS		
Kūḷambandal	OR		
Kāñcī (Ekam.)	ORM		

M = multi faceted or polygonal



Although the distribution-pattern in the delta is simple and confirms earlier statements with regard to the date of certain Early Coḷa monuments — as for instance at Kumbakonam and Nangavaram — the picture becomes utterly confused when mapping the existing combinations of kāl shapes of each and every temple. For, theoretically the variation in applying different shapes is almost infinite, even when the building is small and the number of pilasters is therefore merely four. The following example lists only a number of all possible combinations of kāl shapes on an ekatala.

				niche pilasters	combinations			
S	S	S	S		Ss	So	Sm	Sr
O	O	O	O		Os	Oo	Om	Or
M	M	M	M		Ms	Mo	Mm	Mr
R	R	R	R		Rs	Ro	Rm	Rr
S	O	O	S		SOs	SOo	SOm	SOs
S	M	M	S		SMs	SMo	SMm	SMr
S	R	R	S		SRs	SRO	SRm	SRr
O	S	S	O		OSs	OSo	OSm	OSr
O	M	M	O		OMs	OMo	OMm	OMr
O	R	R	O		ORs	ORo	ORm	ORs

(S,s = square; O,o = octagonal; M,m = polygonal and R,r = round; capitals indicate pilasters on the vimāna).

Of course this incomplete list can be extended by including the theoretical combinations applicable to dvitalas and taller buildings and supplemented with the possible variations of pilasters on the ardhamandapa, but we do not consider this useful, for the few examples just given clearly demonstrate that the Early Coḷa sthāpatis could provide a special touch of individuality to every koyil by way of its pilasters. The question remains, though, whether they really wanted to stress the identity of a shrine. We believe they did and in order to support this view we have visualized it in Figs. 50-54.

Instead of a classification based on the shape of the kāls and their position on the vimāna walls on which they occur, we have used a simplified typology in which the position of the kāls was excluded, but the types of the pilasters applied to the ardhamandapa walls were included. The temples



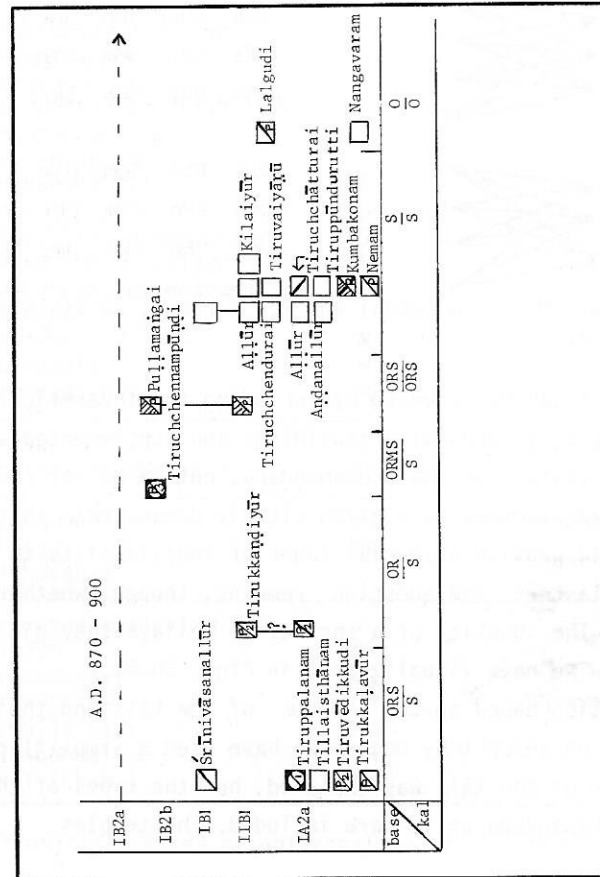






Fig. 50. Early Coḷa monuments built in the Kāverī area between A.D. 870-900 arranged according to base characteristics and combination of kāls.

Fig. 51. Early Cola monuments built in the Kāverī area and at Uḍaiyārgudi between A.D. 900-969 arranged according to base characteristics and combination of kalas.

0 = octagonal; R = round; S = square; M = multi-faceted (polygonal);  
 = vimāna with octagonal kāṭis and ardhamaṇḍapa with square ones;  
 = idal;  = nāṭṭya-pens or vyāṭis; P = panels; / = vari; 1 to 3  
experiments with vari;  = lotus upāna. Vertical place-names site  
of first appearance.

in the delta are arranged according to:

- the simplified typology of *kāl* combinations;
- the type of *adhiṣṭhāna* and
- the period in which we believe the temples were built.

Some interesting observations can be made on the basis of Figs. 50-52 and 54 for each period is characterized by a specific preference for one or more *kāl* shapes and for one or more types of base. We shall first summarize these phase characteristics and subsequently use them to date some monuments which so far were not firmly dated due to lack of convincing arguments.

#### 1.1.1.1. *The Āditya I phase: A.D. 870-900 (Fig. 50).*

The temples built in this phase can be divided into two groups. The first is characterized by a minimum combination of *kāl* shapes and the application of the maximum number of *adhiṣṭhāna* types. The earliest three monuments of the *Sapta Sthānas* and the *Koranganātha* at *Śrīnivāsanallūr* — all showing experiments with the *vari* (Fig. 39, p. 208) — are decorated with square, round and octagonal pilasters. However, these are placed in different positions. At *Tiruvēdikkudi* and *Tillaisthānam* the octagonal *kāls* stand invariably on the corners, the round ones beside the central bays, while square shafts flank the niches. At *Tiruppalanam* the corner-*kāls* are again octagonal, but here the pilasters on either side of the cut-out central niches are round and the shafts on the corners of the central bay are square like those of the lateral niches (Pls. 23-25). To complete the picture with the *Koranganātha* at *Śrīnivāsanallūr* (Pl. 31c), here square *kāls* were applied on the outer bays, round ones flank the cut-out niches as well as the central *devakoṣṭhas* and octagonal pilasters are placed on the corners of the central bays.

The experimental appearance is re-enforced by differences in the top and bottom parts of the *kāls*. The *koyil* at *Tiruppalanam* has pilasters crowned by an *idaḷ*, the *Tiruvēdikkudi* temple has panels under the extension of the *kāls* on the *kaṇṭha*, while the shrine at *Tillaisthānam* has no such additional ornaments. The architects apparently favoured the idea of panel decorations under the pilasters for it was repeated several times (Fig. 39, p. 208). The *idaḷ*, on the other hand, was not accepted until the days of *Śembyan Mahādevī* (appendix 12, map 13).

The complex *vimāna* at *Tiruchchennampūṇḍi* has an extra pair of polygonal *kāls*, while the shrine at *Puḷḷamaṅgai* again shows the earlier combination of square, round, and octagonal shafts, but now the pilasters on the *ardhamāṇḍapa* show the same variation, contrary to the monuments just mentioned which all

have square kāl̥s on their ardhamaṇḍapas.

In the second group of monuments the exuberant, experimental spirit with regard to the shape of the pilasters is no longer obvious. Now the temples have only square or octagonal kāl̥s, although an entirely new type of base is introduced, viz. the beautiful IIB1 adhiṣṭhana. It looks as if this reduction took place for the first time at Tirukkaṇḍiyūr, for here only two shapes were applied in combination with two types of base (Pl. 28), unfortunately partly hidden by the pavement. Once again we notice that a group of buildings which at first sight seem to display uniformity show, on closer examination, a marked variety with regard to — admittedly — unobtrusive details such as panels, etc. For, the monuments standing on a IA2a base and decorated with square pilasters have either the vari and panels (Nemam), or panels, vyālis and nāṭṭya-panels (Kumbakonam, Fig. 43c, p. 216), or they show a padmabandha on the upāna (Tiruchātturai), or no decoration whatsoever (Melatiruppūndurutti). Although the shrine at Tiruvaiyāṇū seems to be a repetition of the last mentioned koyil — except for its base! — it should be pointed out that the vertical fascia of its palagais is carved with delicate diamond-shaped motifs. This type of decoration was also applied on the renovated upper-part of the shrine at Śandalai (cf. Fig. 43a-b, p. 216), thus indicating that the Early Coḷa sthāpatis really wanted to make the walls of their first products unique. For these monuments, characterized by square kāl̥s, demonstrate an individuality of their own by means of their base and/or upāna as well as by means of additional kāl̥ decorations.

When checking these observations with those presented in Fig. 42 (p. 255) we are, once again, confronted with an indisputable fact, viz. that the monuments situated along the banks of the undivided Kāverī are all copies of koyils commissioned by Āditya I at a slightly earlier date, for they show no experiments which they would otherwise certainly have done.

#### 5.2.1.2. *The period between A.D. 900 – 969* (Fig. 51, p. 250).

Building activities were drastically reduced during this period but some of its features are worth mentioning. First of all, three new combinations of kāl̥s were tried out, two of them occurring over a different, although familiar base at Tiruppurambyam (Pl. 40) and Tiruviḷakkuḍi, while a new type of adhiṣṭhana was created in addition at Tiruvādūturai. The other koyils are basically copies of older types of buildings. However, the shrine at Uḍaiyārgudi is not entirely identical with that at Tiruppurambyam — at least not as far as its combination of kāl̥ profiles is concerned — for the latter has octagonal shafts at all the corners of the central bays and round, half-niche pilasters as well as vyālis on

the palagais, whereas the former has only round kāls at the corners of each central bay and along the niches. These round pilasters are, moreover, decorated with buds on top of the square base, a most peculiar feature which seems to be the fore-runner of the lotus bud, occasionally decorating the kāls created in the days of Śembyan Mahādevī (cf. Pls. 40, 61a-b, Fig. 41b-c, p. 211).

The S/S combination occurs on old monuments such as that at Kumbakonam (Pl. 30) and on relatively young ones such as the building at Vēdāranyam. So, it looks as if the temples at Kōyildēvarāyanpēttai (Pl. 44) and Tirumayānam (Pl. 43a-b) could be dated both ways. In view of the fact that both sanctuaries are most probably examples of monuments renovated in the middle of the 10th century (pp. 128-30), it could well be that those responsible for their reconstruction retained the shapes of the original kāls — a preference which was, apparently continued till the last two koyils with octagonal, round and square pilasters were built at Tiruppalturai (Pl. 56) and Tirukkallittattai (Pl. 54). This OR/S combination occurs for the first time at Tirukkaṇḍiyūr, but here the round kāls were placed on the corners of the central bays, whereas they were used as devakoṣṭha pilasters in the other two shrines. The small temples at Tiruppalturai and Tirukkallittattai are very similar, except that at the latter munai are applied under all the palagais of the vimāna, whereas this feature is absent at Tiruppalturai. Finally, there is a difference between the shrines at Puḷḷamaṅgai (Pl. 38a) and Karandai (Pl. 42a-b), for the OR/S shapes occur in different positions. At Karandai the octagonal shafts stand at the four corners and flank the central bays, while the pañjaras have square and the niches round pilasters on either side. At Puḷḷamaṅgai, on the other hand, the lateral bays and the pañjaras all have square kāls, while those on the corners of the central bays are octagonal and the nich pilasters are round.

Such a variation in shapes cannot be accidental and can only be explained if we assume that all temples were documented by way of records which were kept in one place. However, if we accept the existence of a workshop, then the designs of the small koyils at Kōyildēvarāyanpēttai, Tirumayānam, Tiruppalturai and Tirukkallittattai must have been local affairs and not products of this atelier. Earlier on we already pointed out that, in view of their structural layout, these four monuments must have been renovated as a result of local initiatives during the politically dark period and this seems now to be confirmed by the exterior appearance of their walls (pp. 128-30, 139-41).

If variation in kāl shapes is the hallmark of a workshop then the sthānatī of Śembyan Mahādevī's atelier must have shown a similar creativity when designing koyils for their queen. In the following paragraph it will be demon-

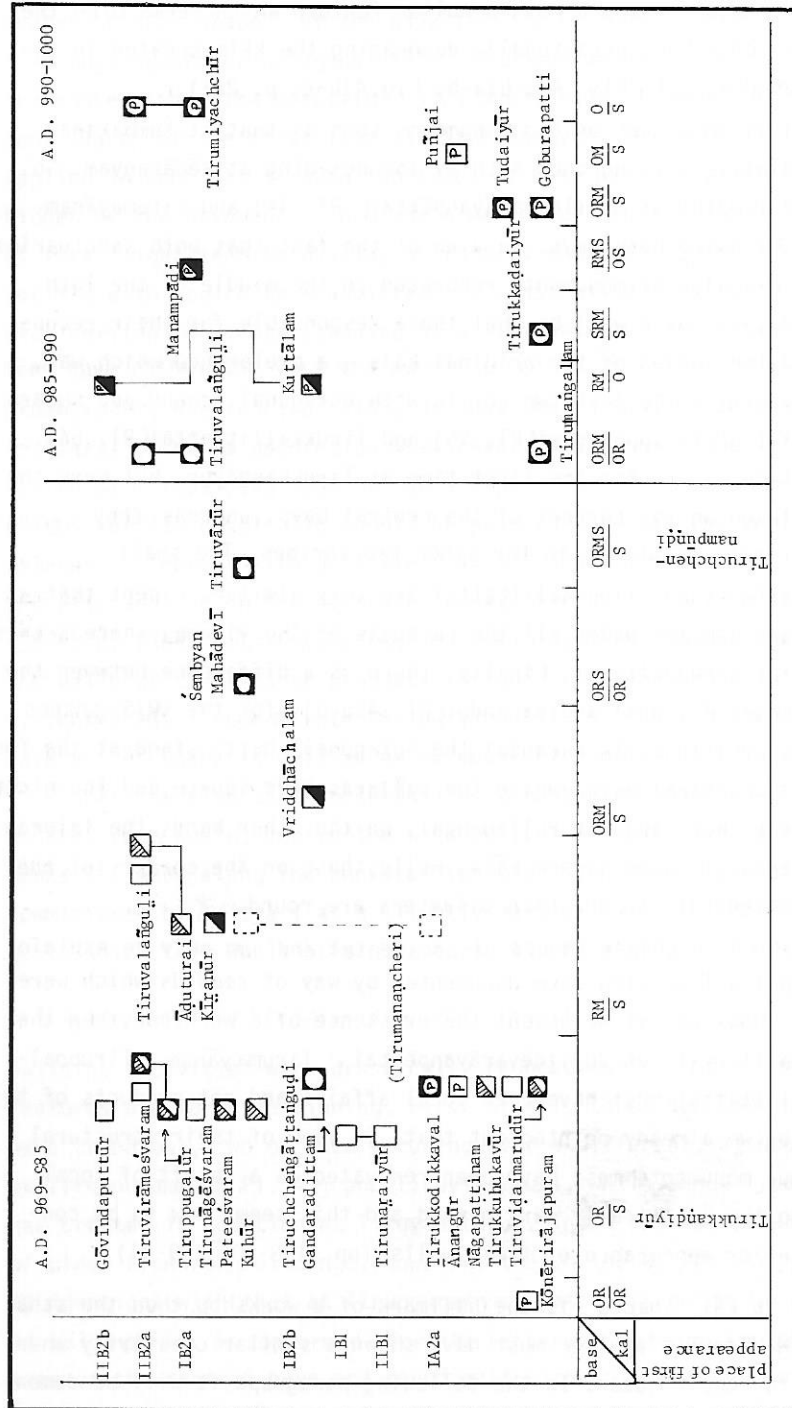


Fig. 52. Early Coḷa monuments built in the Kāvērī delta and at Vriḍdhāchalam between A.D. 969 - 1000 arranged according to base characteristics and combination of kāl̥s.

0 = octagonal; R = round; S = square; M = multi-faceted (polygonal);  $\frac{0}{S}$  = vimāna with octagonal kāl̥s and ardhamaṇḍapa with square pilasters;  $\frac{0}{M}$  = nāṭṭya-peṇs or vyāṇis; P = panels;  $\blacktriangle$  = lotus buds;  $\blacklozenge$  = vertical place-name site of first appearance.



strated that, in fact, they even surpassed their earlier colleagues in combining kāl shapes and types of adhiṣṭhānas.

3.1.3. *The period between A.D. 969-985 (Fig. 52, left column).*

The shrine at Kōṇērīrājapuram, the first to be erected by Sembyan Mahādevī's atelier, introduced a new combination of kāl̄s, viz. OR/OR and, in addition, a completely new layout 1-B-3, although its I-2-a vimāna still connects the building with the previous period. Her architects also invented a surprisingly new type of wall by re-introducing the polygonal kāl̄ in combination with the round pilaster at Kīṭṭanūr, Tiruvalaṅguḷi and Ādutturai. Since in former cases the innovation of a base coincided with the introduction of a new kāl̄ combination (Śrīnivāsanallūr, Tirukkaṇḍiyūr, Tiruchchennampūṇḍi and Tiruvādūtūrai) we are convinced that the same applies to products of Sembyan Mahādevī's workshop, implying that the shrine at Tiruvalaṅguḷi stands on the first IIB2a base ever designed (Pl. 62b) although at present hidden from view (Pl. 62b).

Apart from a new layout and the introduction of new types of kāl̄ combinations a third feature of this age is the emphasis on an almost equal distribution of the different types of temple base which is in sharp contrast with the two former periods. While the first was characterized by IA2a and IIB1 adhiṣṭhānas and the second by IA2a and IB2a bases, all seven types were tried out once more in the third phase. They are represented by the koyils indicated as OR/S implying that all of them have vimānas decorated with octagonal and round kāl̄s and ardhamāṇḍapas with only square pilasters. This similarity is not evident when other aspects are taken into consideration such as the position of the kāl̄s or the presence of munai, nāṭṭya-peṇs, panels or lotus buds. In order to demonstrate that this is a correct observation we shall now summarize the occurrences of these features on the monuments of the OR/S group per type of temple base. Since the adhiṣṭhānas belonging to type IB1, IIB1 and IIB2b are represented by only one example we have to confine ourselves to the discussion of the four remaining groups of koyils in Fig 52, left column.

*The OR/S temples on a IA2a base.*

Structurally, the temples at Tirukkuhukavūr and Ārangūr belong to different types of buildings (I-2-a/1-B-3 and II-4-b/1-B-3 respectively). The pilaster blocks under the vari at Ārangūr depict mythological stories, those at Tirukkuhukavūr are plain. At Tirukkodikkaval we find panels and munai, at Nāgapaṭṭinam there are vyālis on the palagais and at Tiruviḍaimarudūr both munai and vyālis were chosen as ornamentation.

*The OR/S temples on a IB2b base.*

The citizen koyil at Gandaradittam does not display additional kāl decoration that at Tiruchcheṅgāṭṭaṅguḍi shows munai.

*The OR/S temples on a IB2a base.*

The shrine at Tirunāgēśvaram has no additional features except for a single palaster with lotus buds on its base. At Kuhūr we noticed vyālis, at Tiruppugalūr vyālis and munai, and, moreover, the application of two types of base; the temple at Pateśvaram seems at first glance a duplication of the previous monument but it has nāṭṭiya-peṇs instead of vyālis on its palagais and one type of base instead of two. On the other hand it resembles these buildings with regard to the presence of munai (Tiruppugalūr) or the shape of base (Kuhūr).

*The OR/S and MR/S temples on a IIB2a base.*

The two koyils characterized by OR/S kālś are either plain (Tiruvirāmeśvaram, Pl. 62a) or decorated with munai and nāṭṭiya-peṇs. Of the two monuments displaying round and polygonal shafts only that at Āḍuturai is modestly decorated with nāṭṭiya-peṇs.

The fourth and last feature of the entire group of OR/S buildings is the presence in each of the seven subgroups of only one temple without additional decorations such as munai, lotus buds or vyālis, viz. the monuments at Tiruhukavūr (IA2a and OR/S), Tirunaṇaiyūr (IIB1/1B1 and OR/S), Gandaradittam (IB2a and OR/S), Tirunāgēśvaram (IB2a and OR/S), Tiruvirāmeśvaram (IIB2a and OR/S), Gōvīṇḍaputtūr (IIB2b and OR/S).

In this context we should like to draw attention to a peculiarity in the Rāmānjan phase I which becomes significant because it is repeated in the work produced by Śembyan Mahādevī's atelier. In the first phase the sthāpatis seem to have experimented with the IIB1 base by combining this new type with the Pallava circle IA2a and IB1 and with the Cāḷukya adhiṣṭhāna IB2b. The architects of Śembyan Mahādevī demonstrated the same ingenuity trying out all possible combinations of the newly introduced types of base with the three additional adhiṣṭhānas coming of four mouldings:

combination of mouldings	site	position on the building	combination of kālś
IIB2a + IB2a	Āḍuturai Tiruppugalūr	vimāna: IIB2a niche: IIB2a	RM/S OR/S
IIB2b + IA2a	Tirumaṇancheri	vimāna: IA2a niche: IIB2b (ardham.:IB2a)	?

The temple at Tirumaṇcheri is modern, but considering the complicated pattern of its base in combination with the fact that its copied inscriptions refer indirectly to Śembyan Mahādevī as its founder, we believe that the renovators tried to retain the original character of its base. Unfortunately, we are less sure about the appearance of the kāls. However, a few observations can be made in spite of the shortness of this list.

First of all, the sthāpatis applied the IIB2a part either under the vimāna or under its central bay when they selected two types of base. Moreover, they chose different combinations of kāl profiles for these shrines. When adding to the above list the other monuments displaying various types of adhiṣṭhāna under one and the same building, these features are repeated:

combination of mouldings	site	position on the building	combination of kāls
IIB2a + IB2a	Tirumiyachchūr Tiruvālāṅguḷi (Kap)	} vimāna: IIB2a niche: IIB2a	O/S ORM/OR
IIB2b + IB2b	Kuttālam	pañjara: IIB2b	RM/O
IIB1 + IB1	Tirunaṇṇaiyūr	niche: IIB1	OR/S
IIB1 + IB2b	Dadapuram	pañjara: IIB1	OR/OR

We do not believe that this variation in types of base and kāl is accidental, on the contrary, it seems to us to prove the existence of a master-plan. Its supervisor carefully avoided duplication of each new invention by recombining it with other new or existing motifs.

This idea seems to be confirmed when studying the monument at Vriddhāchalam, which was built way out of the delta. It betrays a close association with the other Śembyan Mahādevī koyils by the introduction of a new combination of kāl shapes (ORM/S), while a new variant is simultaneously added to the group of IIB2b shrines. For the temple at Tiruchcheṅgāṭṭāṅguḍi has munai, that at Ganda-vattam shows no decoration whatsoever, and the building at Vriddhāchalam would seem to introduce lotus buds.

This extreme variation in the representation of the shape and decoration of the kāl as well as the manifest wish to avoid duplications in the types of both the base and the shape of the kāl seem to have evaporated in the shrine at Tiruvārūr. For it resembles that at Śembyan Mahādevī in that it has a similar base (IB2a) and munai decoration. At Śembyan Mahādevī a new combination of kāl shapes was tried out and never repeated while at Tiruvārūr the wall decoration of the monument at Tiruchchennampūṇḍi was copied. Moreover, when comparing the position of the various kāls of these last two buildings, it appears that they stand in

exactly the same place, viz. the octagonal kāl̥s capped by munai decorate the lateral bays, the polygonal pilasters are located on the corners of the central bays, the round kāl̥s crowned by munai flank the devakoṣṭha figures and finally the square pilasters stand on either side of the lateral niches. Since the ground-plan at Tiruvārūr is similar to that at Tiruppalanam (III/II-5-c), both buildings have an extra pair of pilasters on the corners of the protruding central part of their walls, but those at Tiruvārūr are round and those at Tiruppalanam square.

We should like to point out that the group of temples raised on a IIB2a represents a complete series of layouts which originated in the workshop of Śaṅkaran Mahādevī: the I-2-a/1-B-3 (Tiruppugalūr), II-2-b/1-B-3 (Pateśvaram), II-4-b/1-B-3 (Kuhūr), II-4-b/3-B-3 (Śembyan Mahādevī) and finally the III-5-c/3-A-3 (Tiruvārūr) which completes the series.

In view of all this the most characteristic developments of South Indian temple architecture during the reign of Uttama Coja consist of

1. a structural revival of the layout in a reverse order when compared with that of Āditya's reign, viz. from a simple ekatala to a complex tritala, while all these experiments were carried out on one type of base only, the IIB2a, an aspect which reminds us once more of the first development observed in the Sapta Sthānas;
2. an explosion of additional kāl̥ decorations all in combination with the rather rigid set of octagonal and round kāl̥s along the walls of the viṣṇuśākhā square pilasters along those of the ardhamāṇḍapa;
3. the introduction of two new types of base (IIB2a and IIB2b) which — in a few instances — were combined with earlier types of adhiṣṭhānas. In certain types of adhiṣṭhāna were chosen, the position of the newly introduced base on that particular koyil and the combination of kāl̥ shapes on the walls appears to be unique. This "tradition" was carried on into the next phase.

#### 5.2.1.4. *The period between A.D. 985-1000 (Fig. 52, p. 254).*

During these years the productivity of the sthāpatis would seem to have been extremely low. However, as almost all of them were working on the Rājarājesvara at Tañjāvūr, their output is quite impressive and its quality remarkably high. Throughout this period new combinations of kāl̥ shapes were tried out time and again. However, no new bases were invented and the kāl̥ decorations consisted mainly of munai and minuscule panels under the pilasters. At the same time, the



variation in familiar base types was strongly reduced. In the delta, the IIB2a, IB2a and IB2b adhiṣṭhānas were each selected only once, whereas the IA2a base was applied exclusively along the borders of the Kāverī area.

Of course, the picture would have been different if we had included the Koyils at Pateśvaram and Nāgapattinam of Fig. 52 in the second or third phase. In the previous chapter we dated them on various grounds provisionally in the reign of Rājarāja I. The appearance of the kumbhapañjara on the walls of the false antarāla at Pateśvaram seemed an indication that the koyil was designed after the first blue-prints of the Rājarājeśvara were completed (pp. 172-73). There were no structural indications that the temple at Nāgapattinam could belong to the last fifteen years of the 10th century (pp. 170-71). It was merely due to the absence of records older than A.D. 1010 that we suggested that this 3-4-3 building was raised after that at Tiruvārūr (A.D. 985). However, in the light of the new information produced by our study of the development of the kāl we have to reconsider our previous statement.

Let us first analyse the architecture during the first five years of Rājarāja's reign, excluding the buildings at Pateśvaram and Nāgapattinam. In contrast to the previous phase, in which large clusters of identical structures were designed, not one layout of a temple built in the subsequent period was ever repeated. This diversity in structural design is even more striking when comparing the decorative elements. The four monuments situated in the delta display four different kāl combinations and four ways of combining the munai, lotus buds and panels.

These characteristics are shared by the monuments supposed to have been constructed in the last decade of the 10th century along the western banks of the undivided Kāverī at Tirumangalam and Goburapatti (pp. 134-35) as demonstrated in Fig. 53 (p. 260). Earlier on we made a distinction between monuments built ca. A.D. 985-990 and ca. 990-1000 in view of the fact that a fixed iconographical layout was no longer prescribed in the last decade of the 10th century (pp. 178-81), while the introduction of the mukhamāṇḍapa reduced the need for large ardhamāṇḍapas (pp. 150-51).

Had we included Pateśvaram in Fig. 53, its temple should have displayed at least some of the features exhibited by the other six dvitalas, the more so, since it is located near Tiruvalaṅguḷi, Kuttālam and Manampādi. However, it has no panels — as such it resembles the shrine at Tiruvalaṅguḷi — and displays neither polygonal kāls nor new kāl combinations. On the other hand, the shrine at Pateśvaram does have vyālis above the palagai, a feature which occurs five times on the shrines of Śembyan Mahādevī but never on temples built during the



first fifteen years of Rājarāja I's reign.

Fig. 53. layout and kāl features of temples built in the Kāverī area between A.D. 985-1000.

name of village	layout	peculiarities with regard to panels munai	other kāl features
<u>Dvitalas:</u>			
Tiruvalaṅguḷi (Pl. 63c-d)		-	above octagonals and round (AM&GG) -
Kuttālam (Fig. 41c, p.211)		1 row	- complete polygonal shaft; pañjaras
Manampādi (Pl. 46a-b)		1 row	above round complete polygonal shaft; pañjaras
Tirukkaḍaiyūr (Pl. 63a-b)		1 row	above octagonals lateral niche kāl round; central bay kāl have square, octagonal, polygonal and round shapes.
Tirumaṅgalam (Pl. 50)		3 rows	above octagonals incl. pañjaras pañjaras octagonal completely polygonal shaft.
Goburapatti (Pl. 49)		2 rows	above round niche kāl; above octagonals; above polygonals flanking Dakṣiṇā-mūrti completely polygonal kāl on central bay; pañjara kāl: square, octagonal, polygonal and round shapes.
The only other monuments showing a similar variation are the ekatalas located at Tudaiyūr, Tirumiyachchūr and Puñjai:			
<u>Ekatalas:</u>			
Tudaiyūr (Pl. 45a)		2 rows	above octagonals and round niche kāl pañjara kāl see Goburapatti; kāl central bay completely polygonal
Tirumiyachchūr (Pl. 64c)		1 row	above octagonals and octagonal niche kāl -
Puñjai (Pl. 60a)		2 rows	- niche pilasters with square, octagonal and polygonal (round!) shapes.

Although we are unable to retrace the original set of images, we may safely attribute this II-2-b/1-B-3 monument to the first ten years of Uttama Coḷa's reign.

adding a divitalavimāna to the IB2a/OR/S group of ekatalas and more complex divitalas. Consequently, we consider the unexpected kumbhapañjara on the wall of the false antarāla at Pateśvaram an experiment in line with the other innovations on these narrow walls as we saw earlier on at Kīṇanūr (bare), Kōnērīrāpuram (window) and Tiruppugalūr (blind niche, p. 171).

The same applies to the monument at Nāgapattinam. The straight walls of its ardhamandapa, the presence of vyālis, the absence of munai, panels and polygonal shafts and the OR/S shapes of the kāls all indicate that this building rather belongs to the period of Uttama Coḷa than to that of Rājaraja I. In view of its 3-A-3 layout it might have been constructed after the shrine at Tiruvārūr; the size of its vimāna (II-2-b) suggests that it was not built under royal patronage but rather by a wealthy citizen (p. 170).

After these arguments demonstrating why the monuments at Pateśvaram and Nāgapattinam had to be excluded from the above list, we now have to prove why the shrines at Tudaiyūr, Tirumiyachchūr and Puñjai can be associated with those at Tirumaṅgalam and Goburapatti.

*The Viṣamaṅgaleśvara at Tudaiyūr (Pls. 45a-b).*

This temple was already mentioned in the paragraph on the development of the pañjara (pp. 130-31) where we were unable to determine its age because it is the only example of a IIa type of pañjara, i.e. a pañjara with a kūdu incorporated in the main kapota of the building, though without an individual base. Now, we are dealing with a 1-2-a vimāna located in an area dominated by II-2-b shrines (map 5 and Table A). The only other two temples with a 1-2-a vimāna in this area are those at Lalgudi and Kumāravayalūr, the former dates from the last decade of the 9th century (Fig. 42, p. 215) and the latter will appear to be a foundation of the Muttaraiyars standing on an original base (p. 296). This last conclusion is mainly based on the size of the vimāna which appeared too small to contain proper niches. The 1-A-1 layout of the Viṣamaṅgaleśvara seems to contradict an association with the architecture of the 9th century in this region (map 6), and would rather seem to point to a date in the middle of the 10th century at the earliest. At that time the Piṭṭeśvara at Tiruverumbūr was adapted to modern taste by the addition of niches in the walls of its formerly too short ardhamandapa (pp. 119-20). The distribution-pattern of polygonal kāls (map 11) in combination with the munai or idaḷ over the shaft or under the palagai (map 13) relates the Viṣamaṅgaleśvara both to the monuments at Goburapatti and Tirumaṅgalam and to the koyils at Tiruchchennampūṇḍi and Tiruppalam. The latter two are the only examples from the 9th century

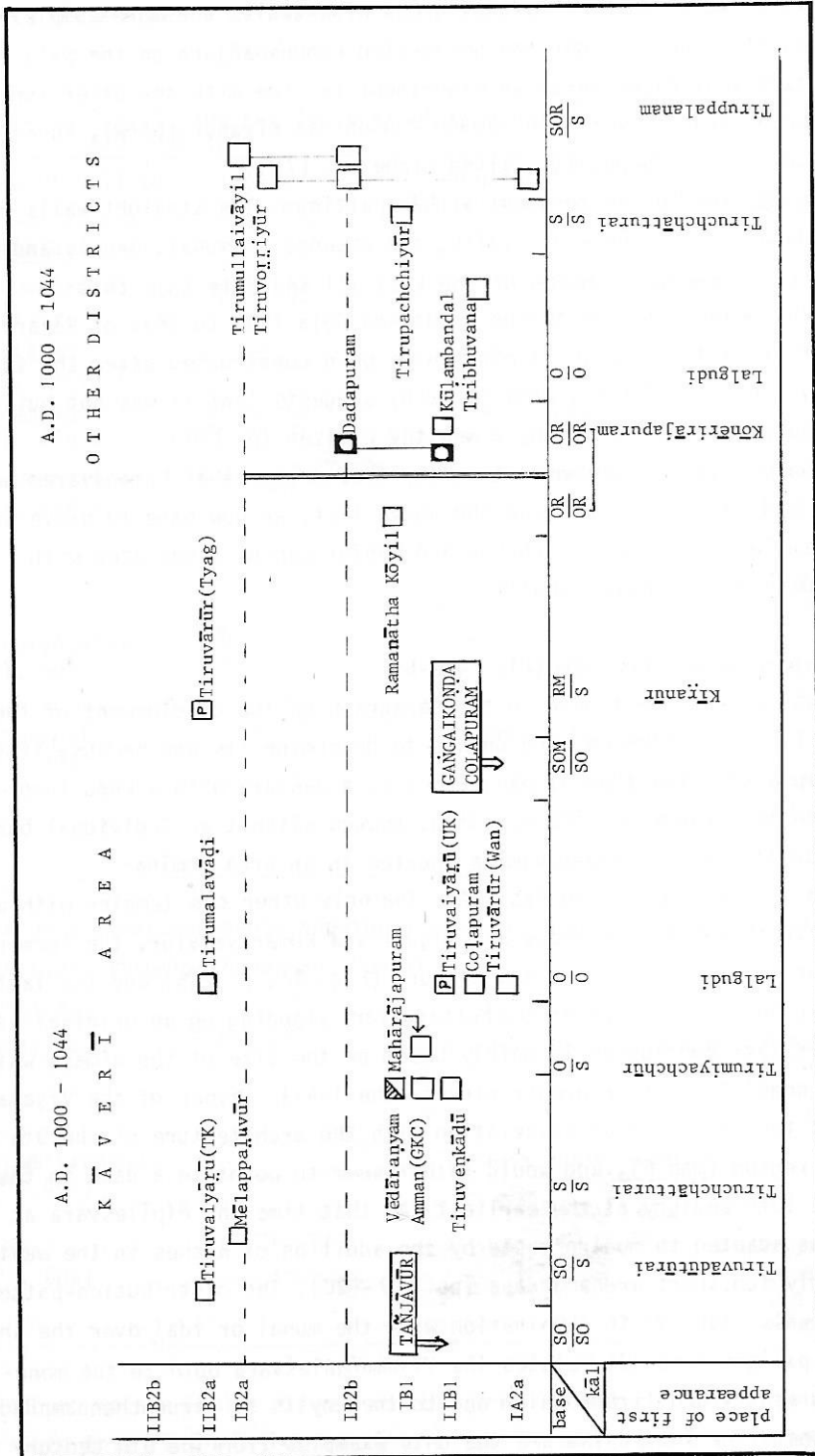


Fig. 54. Early Coḷa monuments built between A.D. 1000 - 1044 arranged according to base characteristics and combination of kāls.

O = octagonal; R = round; S = square; M = multi-faceted (polygonal);  $\bigcirc$  = viṃśa with octagonal kāls and ardhamaṇḍapa with square pilasters;  $\square$  = maṇḍaliṣṭha;  $\nabla$  = natya-peṇḥ or vyāṭṭiṣṭha. Vertical place-names site of first mention.

with this type of decoration, though it was quite common in the days of Śembyan Mahādevī (Fig. 52, p. 254). However, at Tiruchchennampūṇḍi the polygonal shafts are complete and not divided into sections as, for instance, at Tirukkaḍaiyūr (Fig. 53), where they imitate the pilasters on the walls of the shrines at Ādurai and Kīṇanūr. The kāls of the pañjaras at Tudaiyūr are also divided into sections and resemble the full-size, complex corner kāls of some Śembyan Mahādevī monuments; they are, moreover, exact copies of the pañjara pilasters applied at Goburapatti (cf. Pls. 49 and 63a).

In every respect the Viṣamaṅgaleśvara demonstrates its dual character. If it is a product of the same architects who designed the Sapta Sthānas and the other koyils mentioned in Fig. 39 (p. 208), its 1-2-a vimāna, however, should be linked with the monuments at Melatiruppūndurutti and Tirukaḷavūr belonging to the same category (Pls. 29a-b and 53). Comparing the ornamental details of these three monuments, it is obvious that the Viṣamaṅgaleśvara was not built by the architects who gave the shrines at Melatiruppūndurutti or Tirukaḷavūr such a superior touch. The difference is especially notable in the execution of the vyāli friezes and the kūdus, which are particularly wide-open at the bottom at Melatiruppūndurutti and Tirukaḷavūr, whereas at Tudaiyūr the border of circles is uninterrupted by the kūdus, and forms as it were their floor. This feature can also be observed on the kapotas of the koyils at Tirumayānam (Pl. 43a), Kōyildēvarāyanpēṭṭai (Pl. 44), Goburapatti (Pl. 49) and Tirumaṅgalam (Pl. 50). Consequently, the Viṣamaṅgaleśvara is a product of the 10th century and was built in the same decade as the temples at Goburapatti and Tirumaṅgalam, each representing another type of vimāna, kāl combination and pañjara, a freedom of choice characteristic of the end of that century.

#### 5.2.1.5. *The period between A.D. 1000-1044* (Fig. 54).

In Fig. 54 we have listed the monuments dated later than A.D. 1000.

They are arranged according to their base and combination of kāl shapes. Two facts are obvious in the imperial buildings at Tañjāvūr and Gaṅgaikoṇḍaḷapuram. In both a new combination of kāls was introduced and, in addition, the preference for the IB1 and IIB1 adhiṣṭhānas was revived, the first above a new type of upāna, the second with an ogeed jagatī but without a decoration of lotus petals. The other koyils display a strong bias towards forms common in the days of Āditya I, such as the combination of kāl shapes, the base and the layout of the vimāna. They occur throughout the Tañjāvūr District (map 3) in a triangle formed by Vēdāranyam, Tiruveṅkāḍū and Tirumalavāḍi. This indicates that shrines with these characteristics were built after the period in which sthāpatis from

Taṇjāvūr repeatedly and over increasingly larger distances entered the delta. The influences brought along by them reached their natural limits at the sea-shore roughly ca. A.D. 1000. This implies that monuments raised in the subsequent period must show a dispersive distribution-pattern and, moreover, a traditional layout in combination with a IIB1 or IB1 base. When we apply these criteria to the controversial temples at Puñjai and Tirumiyachchūr (Fig. 52, p. 254) as well as the Ten Kailāsa at Tiruvaīyārū (Fig. 54) - then it seems likely that the first two still belong to the 10th century and the third to the early years of the 11th century. The other monuments enumerated in Fig. 54 no longer have affinity with the shrines discussed earlier on and listed in Fig. 52.

The koyil at Puñjai displays the unique combination of kāl shapes reflecting the ingenuity of Śembyan Mahādevī's atelier. It stands, moreover, on a IA2a base which is uncommon in the delta during the 11th century (Fig. 54). Its polygonal kāls are partly comparable with those of the shrine at Tirukkaḍaiyūr (Fig. 53, p. 260), for they are divided into sections, which is characteristic of the late Śembyan Mahādevī monuments. However, the upper part of the kāl is octagonal and not round, as in the other examples listed in Fig. 53. This obvious flexibility with regard to the adaptation of earlier motifs - demonstrated not only in the shape of the pilaster but also in that of kūḍus and in the layout of the ardhamandapa - was no longer present in the 11th century. In view of all this we have to attribute the koyil at Puñjai to the last decade of the 10th century.

The shrine at Tirumiyachchūr (Fig. 52) differs from the previous one by the absence of polygonal kāls. On the other hand, the exclusive appearance of octagonal kāls on the vimāna and square ones on the ardhamandapa, is an arrangement not met before. This seems to indicate that we are dealing with the product of Śembyan Mahādevī's workshop. The presence of a double type of base, viz. the IIB2a and the IB2a adhiṣṭhāna under the vimāna and the ardhamandapa respectively, in addition to the occurrence of munai and/or panels also points to that obviously famous atelier, which was characterized by experiments with the layout, base and additional kāl decorations such as those displayed at Tirukkalagam, Goburapatti, Tudaiyūr and Tirukkaḍaiyūr.

The fact that the vimāna at Tirumiyachchūr is apsidal from upāna to śikhara shows that it should not be considered a copy of an old Āditya I monument, but rather as a replica of a Pallava monolith at Māmallapuram. Had it been constructed in the 11th century it should have displayed the ordinary type of vimāna on a square ground-plan. So it might be regarded as an unexpected example of an alien idea, brought to the delta at the time the elephant's backs of the



north were re-introduced in South Indian architecture, viz. at Tiruppachchiyūr (ca. A.D. 995, p. 239). Consequently, we date this apsidal vimāna in the Kāverī delta around A.D. 990-1000.

Finally, the Ten Kailāsa at Tiruvaiaiyāṛū seems to belong already to the 11th century, precisely because its type of base is again and again applied in the course of that century and the combination of its kāl contours in an undecorated version is not new, as it was copied from the monument at Tiruvādūtūrai. On the other hand, its structural layout 1-A-3 with pañjaras instead of blind niches on either side of the central bays of the vimāna should be interpreted as an attempt to avoid an old type of ground-plan. Especially this last point rather convinces us that the Ten Kailāsa dates at the latest from the very beginning of the 11th century.

The remaining temples in Fig. 54 will be discussed in the paragraph dealing with the podigai, since the history of this important element can be traced among others in these koyils (pp. 302-07).

#### 4.2.2. *The South Arcot District* (Table E, p. 248).

The distribution-pattern in South Arcot is a model of simplicity. It shows a core characterized by temples with square kāls. This area is surrounded by a zone in which the octagonal shaft is part of each and every shrine. In general, the buildings in the core are older than those in the surrounding area (appendix 13, nos. 1-6, 13 and 14). However, this statement is only correct if we succeed in proving that the koyil at Tiruvāndārkōyil, situated right in the heart of the core and decorated exclusively with square pilasters, is older than the monuments at Tiṇḍivanam and Kṭlūr, both located in the zone in which the octagonal shaft was common, although some scholars consider them to be earlier than the temple at Tiruvāndārkōyil (cf. appendix 13, nos. 8, 15 and 16). In our opinion both buildings were designed after A.D. 967 (p. 224), the year mentioned in the copy of a record engraved on the shrine at Tiruvāndārkōyil in A.D. 990. In view of the fact that the distribution-pattern of temples with square and octagonal kāls allows this interpretation, we shall now summarize the various arguments advanced so far.

In the first place, the part above the vari of the shrine at Tiṇḍivanam is not contemporary with its base for its stylistic appearance differs entirely from the upper part (p. 226); the foundation itself was laid between A.D. 950-955 (pp. 225-26). This could imply that the completion of the koyil at Tiṇḍi-

vanam was delayed for several years, or even decades. Secondly, the base of octagonal shafts is always square, the shape of the pilaster is not conditioned by the part under or directly above the vari. Consequently, the sthāpati could decide at a relatively late stage (possibly decades later) whether to select a square or octagonal shaft. Since the upper part of the building — apart from its IIB pañjara — was left plain, we can, moreover, assume that the shrine was completed during a period in which sculptors were inactive. This was not the case between A.D. 965-980, when the three monuments at Bāhūr, Kīṭṭūr and Vīṭṭu-hāchalam were finished, for all three buildings show fine decorations. Consequently, we have to assume that at some uncertain date the villagers of Tūpavanam decided to erect a building which would suit the size of the platform left by the Rāṣṭrakūṭas. However, when this decision was taken cannot be deduced from this addition. Due to the occurrence of octagonal pilasters we are inclined to attribute it to around A.D. 980 or later, i.e. after the completion of the koyil at Kīṭṭūr, for it does not seem likely that an innovation of this kind could have been introduced in the district under these restricted conditions.

Inscriptional evidence on the monument at Kīṭṭūr allows for a later date than suggested by both Balasubrahmanyam and Barrett (appendix 13, no. 16), although they agree that the temple in question was rebuilt. For a record was found on a stray stone in the compound dated in the 13th regnal year of Parāntaka I. This indicates that the original koyil must have indeed been reconstructed after A.D. 920. When asking ourselves when this happened there are two possibilities. The Kṛṣṇa III records on this temple dating from A.D. 959-965 and engraved between the new, octagonal pilasters could either be original or copied from an older shrine — an activity which, consequently, should then have taken place after A.D. 965. Balasubrahmanyam believed that the shrine at Kīṭṭūr belongs to the reign of Parāntaka I, whereas Barrett assumed a later date on grounds of a record on its walls mentioning two gifts from the 28th and 33rd regnal years of a Parakesari. This could mean that the original two inscriptions were copied as one, possibly due to lack of space.

We agree with Barrett that this must have happened after the 33rd regnal year, i.e. A.D. 940. On the other hand, we reject his suggestion that the renovation must have occurred ca. A.D. 959. Barrett based his opinion in the first place on the presence of the records in the name of Kṛṣṇa III, the earliest of which dates from A.D. 959, and, secondly, on the presence of Gaṅgā and Yamunā supported by dwarfs on the door-jambs of the temple entrance. These facts can be interpreted differently. Firstly, the inscriptions of Kṛṣṇa III could have been

copied, like the records of Parāntaka I, for none of them refers to the renovation or reconstruction of the building. Secondly, the two alien figures on a shrine, which in all other respect displays the early Coḷa style, merely indicate that the architect was aware of the Cāḷukya custom to include these river-goddesses in the decoration of a temple. The copying of this Cāḷukya element does not necessarily imply that Kṛṣṇa III was present in this part of India when the shrine was built.

Another reason to date the monument at Kīḷūr after A.D. 965 is the refinement of its ornamental details, for if it was reconstructed between A.D. 940-960 it would have been the only really exquisitely decorated koyil in the entire Coḷa empire belonging to that period. In the delta only small shrines were repaired or renovated (appendix 9, nos. 19 and 21), and though the temple at Tiruviḷakkuḍi (appendix 10, no. 5) is an exception, even that building took more than a decade to be completed (A.D. 959-970). Combining this decoration of the monument at Kīḷūr with other features characteristic of the Early Coḷa style such as the presence of the vari, the padmabandha on the upāna and above all the II-2-b/1-B-1 layout, we can safely assume that it was constructed after the hybrid temple at Bāhūr. On the latter the octagonal kāl̥s and the vari are still absent, although it was built ca. A.D. 965, but its I-1-a/1-B-1 layout is Early Coḷa. However, its upāna is of an unknown variety never applied by either the Coḷas or the Rāṣṭrakūṭas.

Summarizing the various aspects introduced in the koyils at Bāhūr, Tiruvāṇḍārkōyil and Kīḷūr, the following instructive series emerges:

at Bāhūr	the Coḷa 1-B-1 layout;
at Tiruvāṇḍārkōyil	the Coḷa II-2-b layout and the Coḷa vari;
at Kīḷūr	the Coḷa octagonal kāl̥ and the Coḷa lotus upāna under a IB1 base (re-introduced in the delta at Tirunaṟaiyūr between A.D. 970-980).

In view of all this we attribute the monuments at Tiruvāṇḍārkōyil and Kīḷūr to roughly A.D. 967-970 (A.D. 967 being the year of the latest copied record, p. 265) and ca. A.D. 975-980 respectively.

The round kāl̥s on the recently renovated shrine at Madagadipattu<sup>22)</sup> and the octagonal kāl̥s on the Varadarāja Perumal at Tribhuvana — both located in the area where the square pilaster is predominant — indicate that these two buildings must be either older or younger than the other monument in this area (appendix 13, nos. 20 and 23). Inscriptional evidence proves them to be later, for, in the compound of the Tirukandīśvara at Madagadipattu some slabs were discovered carrying inscriptions, one of which is a foundation record

stating that the koyil was raised by Rājarāja I.<sup>23</sup>) The Perumal at Tribhuvana was built around A.D. 1000-1015 (p. 244). The layout of both monuments deviates from the current I-B-1 type still applied in the temples as Ādapuram (appendix 13, nos. 21-22) constructed before A.D. 1006. This aspect is of importance in connection with the dates of the shrines in South Arcot not yet discussed. At this stage, however, we can only attribute them to the days of Rājarāja I and his successors in view of the fact that they combine the octagonal and/or round pilasters with an I-2-b/1-A-1 layout. We shall now conclude our survey of monuments in South Arcot by summarizing their characteristics in relation to their dates.

*The Tirukaṇṭīśvara at Madagaḍipattu* (Pl. 82; appendix 13, no. 20).

This Śaiva koyil must have collapsed and its stones robbed. Nevertheless, Pattabiramin renovated this temple along "scientific lines".<sup>24</sup>) The shrine has a I-4 layout to which an antarāla and a mukhamaṇḍapa (floor) were added in the style of the vimāna. At present the vimāna belongs to the I-2-b type, but in our opinion parts of the original kaṇakuṭṭis are reworked in the niches and could be interpreted as remnants of an older hāra, which would imply that originally, this shrine must have been a II-2-b building. However, the size of its śikhara goes against this view, for the impressive cupola is too large for the relatively small ceiling of a second tala (for other I-2-b vimānas with kaṇakuṭṭis cf. Pls. 71a and 80).

Assuming that Pattabiramin did his utmost to restore the koyil on a given ground-plan and used as many original blocks as could be recovered, we can draw the following conclusions. Firstly, the king, apparently, did not spend a large amount of money on the construction of this temple, for in that case it would have displayed a design similar to that at, for instance, Kuttālam or Tiruvannamalai (cf. appendix 11, nos. 19, 23, 24). Since this is not the case, and the size of the building, moreover, resembles that of the later and much smaller Rājarāja monuments in the delta, it could have been constructed in about the same period, viz. between A.D. 1000-1014 (cf. appendix 11, nos. 27 and 29). In the second place, a number of old and familiar features which lend the shrine the appearance of a collage, remind us of the products built during the second half of Rājarāja's reign. The I-2-b vimāna could have been copied from the koyil at Uḍaiyārgudi, the IB2b base from that at Vriḍdhāchalam, the I-A-1 layout from the temples around Tañjāvūr, whereas the application of the same type of pilaster on both the vimāna and the ardhamāṇḍapa is an arrangement which can be associated with the shrines constructed after A.D. 1000 (cf. Fig. 54, p. 262).

In view of this we may assume that the Tirukaṇṭīśvara was commissioned



around the same time as the monument at Tiruveṅkaḍū, and that it is probably also contemporary with the temple at Vēdāraṇyam (A.D. 1000-1014). With reference to these facts it would seem that Rājarāja spent most of his money in his capital and paid only scarce attention to the dilapidated shrines in the smaller towns of his empire — a state of affairs already suggested as a possibility in the previous chapter (pp.165 - 66). In that case the two temples at Dadapuram built with lavish funds just before A.D. 1000 could well represent the last token of royal patronage in the outlying districts, while from then onwards the 1-B -1/3 layout was no longer selected because its size was too large for the locally available means. Since the Jambunātha belongs to this category we shall now turn to this monument.

*The Jambunātha at Jambai* (Pl. 83; appendix 13, no. 18).

The Jambunātha is the westernmost koyil built by the Early Coḷas in this area. It is a II-2-a/1-B-1 construction standing on a IB2a base and decorated with octagonal, round and square pilasters. Since its present superstructure is entirely made of brick, we believe that, originally, the vimāna must have been an ekatala of type I-2-a.

Records from the days of Parāntaka I were discovered on slabs scattered in the compound, while many inscriptions dating from the period of Rājarāja I are engraved on the walls of this building.<sup>25)</sup> This does not automatically imply that it was reconstructed during Rājarāja's reign. We may only conclude that reconstruction took place between A.D. 955, the year in which Parāntaka I died and A.D. 1001, the 16th regnal year of Rājarāja I — the earliest year mentioned in one of the inscriptions on the walls.

The presence of octagonal and round kāls indicates that this koyil was built after that at Kīlūr, i.e. after A.D. 975-980. A few more arguments support this view. In the first place, the Jambunātha at Jambai cannot have been constructed between A.D. 955-965, as in that case it would have shown Rāṣṭrakūṭa influences which are noticable in this area, especially in the ground-plan and/or downmost layers of a building (cf. the upāna at Bāhūr, Pl. 72c; the layout of the shrine at Tiṇḍivanam, the division of its ardhamandapa walls, and the fact that only the adhiṣṭhāna is decorated, Pls. 51, 69a-b). On the other hand, the original layout of the Jambunātha, viz. I-2-a/1-B-1, indicates that this building was, right from the start, designed in the Early Coḷa style. The presence of the vari and the relatively simple lotus upāna point in the same direction. In the second place, the Jambunātha cannot have been constructed before the shrine at Tiruvāṇḍārkōyil, i.e. between A.D. 965-970, as in that case it would



still have had square *kāls* instead of the present octagonal and round pilasters (cf. Pl. 68, pp. 265-66), though the decoration in as far as still present is rather dull on both monuments. In the third place, the Jambunātha in its present form cannot date from A.D. 970-980, as that is the prosperous period in which the temples at Kīlūr and Vridhāchalam were erected. Consequently, the shrine can only have been constructed between A.D. 980-1000, the year A.D. 1001 being the earliest date referring to Rājarāja I mentioned in a record on its walls, while all earlier inscriptions lie scattered in the compound.

Unfortunately, the building has no spectacular features providing more convincing arguments for its position within the chronology suggested in Fig. 46, p. 227. Comparing it with another unattractive koyil, viz. that at Brahmadeśam (A.D. 990-1000; appendix 13, no. 19 and p. 243) we believe that some less skilled craftsmen — probably from the area itself — tried to copy two fine examples, viz. the 1-B-1 koyil at Kīlūr and the 1-B-3 monument at Vridhāchalam which were both created by artists who had returned to the delta after completing their work in South Arcot.

*The Rāmanāthesvaram at Eśālem* (Pl. 84; appendix 13, no. 9).

The Rāmanāthesvaram was called Valīśvara or Tiruvirāmesvara by Balasubrahmanyam who attributed it to the reign of Rājarāja I.<sup>26</sup> It has square and octagonal pilasters and *idaḷs* under its palagais. The building does not carry inscriptions from the days of either Rājarāja I or later kings. However, some records on the two shrines at Brahmadeśam not far off, refer to the koyil in question but they date from the days of Kulottuṅga I at the earliest (A.D. 1077). For some reason Balasubrahmanyam included this koyil in his chapter dealing with monuments belonging to the period of Rājarāja I. We believe he was right in doing so, but only if we attribute the building to the second half of Rājarāja's reign, for, otherwise, the *munai* on this temple would be the first ever designed in South Arcot. The reasons why we believe that the monument was raised between A.D. 1000-1014 and not during the rule of Kulottuṅga I are as follows.

In the first place, we learn from the distribution-pattern of the *idaḷ* that this ornament never became common in the Coḷamaṇḍalam, although it was applied rather frequently on temples built during the days of Śembyan Mahadeva which includes the early part of the reign of Rājarāja I. Since the *idaḷ* can be associated with the activities of this queen, it seems correct to assume that the *idaḷ* was introduced in South Arcot with the koyils at Dadapuram —

monuments of which the records specifically mention that they were financed by members of the royal family. Now, the small temple at Eśālem was apparently not built under such high patronage, so we may safely assume that its sthāpati when designing the koyil at the instigation of the villagers copied temples in the same district which may well have been the impressive monuments in the neighbouring town of Dadapuram (A.D. 1000-1006), implying that the shrine was raised after that. As it is a citizen koyil it must have been a smaller temple than those at Dadapuram, which is confirmed by its smaller 1-A-1 lay-out contrasting with the large 1-B-1 ground-plans at Dadapuram.

Furthermore, it is unlikely that the koyil at Eśālem was constructed during the reign of Kulottuṅga I, because at that time the architectural style had already changed considerably as is obvious at Siddhalingamaḍam (A.D. 1070, app. 13, no. 12), where we find a building with the same 1-A-1 layout as at Eśālem, but decorated with round and octagonal pilasters and boldly shaped idaḷs, while its podigai is transformed into a T with vertical rib incisions. Since the podigais at Eśālem all belong to the throated type current in the delta throughout the 10th century we are inclined to attach importance to this new shape introduced at Tañjāvūr around A.D. 1000, and consequently we believe that the monument at Eśālem could indeed have been built between A.D. 1000-1014.

*The Brahmeśvara at Brahmaḍēśam* (Pl. 85a-b; appendix 13, no. 11).

This shrine seems to confirm the development suggested above and in Fig. 57 (p. 300), viz. that the throated podigai changed into a T in South Arcot and that the mukhamaṇḍapa became a fixed feature in the total design of the small, main koyil in a temple compound. The earliest dated inscription on the Brahmeśvara mentions the year A.D. 1101.<sup>27)</sup> The I-2-b vimāna has a 1-A-1 layout with an antarāla and mukhamaṇḍapa. The corbel is T-shaped and the row of bhūtagaṇas does not continue along the ardhamāṇḍapa. The circle inside the kūḍus on the kapota is detached from the bottom edge and there are rosettes instead of simhamukhas over the kūḍus (appendix 6, Fig. g). So, from the podigai upwards this temple dates from the Middle Coḷa period. Since we could not detect any difference between the treatment of the stone carvings and decorations on the lower and that on the upper part of the building, we are inclined to consider both parts contemporary, implying that the entire complex belongs to the days of Rājendra I or his successors.

With this Middle or Late Coḷa monument at Brahmaḍēśam we conclude our

discussion of the architectural development in South Arcot. We have tried to date the temples in this area as far as their rather dull features allowed. The last two elements to be discussed, viz. the śikhara and the podigai, do not contribute to our knowledge with regard to the shrines in this district, since two of the original superstructures have disappeared. The podigai in its throated or angular version occurs on all buildings except on those which were constructed after the reign of Rājendra I, viz. the koyils at Brahmadeśam (Br), Siddhalīngamaḍam and Tirukkoyilūr (appendix 13, nos. 11-12 and 24). However, the śikhara and podigai appear to be of great importance for the temples in the Tiruchirappalli District and the Palar region respectively. When discussing these two elements in paragraphs 6 and 7 (pp. 275-316), we shall return to the monuments in both areas.

### 5.2.3. *The Palar region.*

The distribution-pattern of the kāl variants in the Palar region is not very helpful. As usually, the Coḷa variants occur on the fringe of this large area, either on temples displaying the octagonal shaft exclusively (Paramēśvaraśaīlām), or on buildings with the more characteristic Coḷa combination of round and octagonal kāls (cf. Table E, p. 248).

When comparing the information provided in appendix 15 and Table E we seem to be able to draw the following conclusions. In the first place, the round kāl was introduced in the Toṇḍaimaṇḍalam about 40 years later than in South Arcot and appears for the first time on the Coḷeśvara at Mēlpādi dated A.D. 1014 (appendix 13, no. 16; appendix 15, no. 19). In the second place, the combination of round and octagonal shafts is a matter of choice, for there are a number of shrines which still display the massive, square shaft although they were built in the 11th century or later. These monuments exhibit the old-fashioned type of pilaster in combination with a corbel which is somehow carved into a T (appendix 15, nos. 20-24, 28, 30). Since all other shrines with square kāls are characterized by the Early Coḷa podigai (appendix 15, nos. 10-14, 16, 18), it is obvious that we cannot date a temple exclusively on the base of the appearance of its pilasters, for we have to take into account the shape of its podigai as well. Since the corbel is the subject of our last paragraph, we shall postpone our discussion of the remaining monuments in the Palar region till then (pp. 307-16).

### 5.3 Some observations regarding the presence of attendant figures.

The reader may be slightly surprised to be confronted at the end of the discussion of the *kāl* with some observations regarding the occurrence of attendant figures on either side of the niches. However, it should be realized that these images are carved in the stones which contain at least one, but normally two *kāl* bases. Good illustrations showing this arrangement are Plates 31a, 38b, 52a, 54, 55a, 62b, 73, 80b and 100. So, whenever sculptures are present they were planned in combination with the shape of the half-size niche pilasters and corner *kāls* of the central bays.

On map 13 the distribution of temples displaying small sculptures on either side of one or more *devakoṣṭhas* shows a strong regional bias, for they are restricted almost entirely to the delta and are absent almost everywhere. In the Palar region this feature occurs in shrines built during the 11th century, viz. those at Tirumullaivāyil (T), Tiruvorriyūr (Tr), Kāvaṇṇandālam (Ka), Kūḷambandal (Ku) and Tirumaḷisai (Tm) appendix 15, nos. 31, 27, 20, 29, 28). In South Arcot the monuments at Dadapuram (D) are the only two examples of shrines exhibiting these figures.

In view of the fact that these tiny expressions of devotion in stone appear to be a typical Early Coḷa element in the architecture of Tamil Nāḍu towards the end of the 9th century, we conclude that this concept associates the buildings just mentioned to the Early Coḷa style, although they deviate from it in many other respects as we shall see further on.

We should like to draw special attention to the period in which these attendant *ṛṣis*, animals, *gaṇas* and celestial beings were created, for, their appearance has to be related to the experiments carried out by Āditya's workshop. Among all the monuments raised between A.D. 870-900 and listed in Fig. 50, p. 250, these figures appear only at Śrīnivāsanallūr, Puḷḷamaṅgai and Tirukkaḷavūr. On the other hand, they are present on all shrines built in the 10th century and listed in Figs. 51 and 52 (pp. 250 and 254 respectively), except on the large *koyil* at Tiruppurambyam and the shrines built as a result of local initiatives at Tiruviḷakkuḍi, Tiruppalturai and Gandaradittam. They are also absent in temples raised during the last decade of the 10th century and seem to be re-introduced only as late as the second quarter of the 11th century at Gaṅgaikoṇḍaḷapuram.

What does this distribution in space and time reveal? First of all, it should be pointed out that these figures on either side of a deity may well have been depicted by way of paintings in the phase preceding the Early Coḷa



period. This practice could have lingered on during the first 30 years in which Āditya's workshop was active, which would explain the absence of blocked-out shapes between the two pilasters on either side of a niche between A.D. 870-900. There is also another possibility, for the lateral niches in the first three vimānas of the Sapta Sthānas may have been intended for large figures similar to those on the Arjuna Ratha at Māmallapuram (Pl. 1). However, from the way the lateral sculptures are arranged — sometimes in three rows one above the other — it is obvious that long, narrow niches do not offer a particularly suitable space for seated ascetics praying at the feet of Dakṣiṇāmūrti — as at Śrīnivāsanallūr (Pl. 31b) — or a seated figure in the act of offering his/her head to Durgā — as depicted at Puḷḷamaṅgai — or the necessarily small figures of Viṣṇu and Brahmā on either side of Liṅgodbhava — as shown also at Puḷḷamaṅgai (Pl. 31a).

In our opinion the early Coḷa sthāpatīs were confronted with this problem when they copied the Pallava layout with its long, narrow and, moreover, shallow cut-out niches. It is quite possible that they wavered between two solutions. The first would be to eliminate the superfluous niches resulting in the II-2-a and I-2-a layouts and to paint the walls as may have been the custom on brick temples. The other solution could be to leave these niches empty (Śrīnivāsanallūr) or to replace them with pañjaras (Puḷḷamaṅgai) and to frame the deities with stone versions of the originally painted figures. In that case the Koramangala nātha at Śrīnivāsanallūr represents an intermediate stage — and should not be interpreted as the result of outside influences in the Kāverī area —, for the only deity placed in a kind of tableau consisting of three superimposed stone carvings, is Dakṣiṇāmūrti, implying that the wall space around the other four main images remained bare or was originally merely painted. The latter possibility is less likely as no traces of paint were ever noticed on this building as far as we know. At Puḷḷamaṅgai and Tirukkaḷavūr complete sets of small figures were for the first time carved on either side of all five deities.

We are not in a position to judge whether the representation of attendant deities and/or ṛṣis, animals and celestial beings can be related to a specific early phase in the development of South Indian mythology and its transfer into painting and sculpture. The mature way in which these figures are depicted on the three monuments just mentioned indicates that they must have been known — at least in paintings. However, it is obvious that the long, narrow niches are unsuitable for seated figures, be it in single, double or triple rows. Of course our reasoning can only stand if we accept the existence of a workshop, for only then the trials and errors, resulting in intermediate solutions, appear as natural. After having demonstrated that the monuments built between A.D. 870-900 show



experiments in all details discussed so far, it should not be surprising that they also show variations in this respect.

## 2. Composition of the śikhara

The śikhara is not a real storey, but the cupola over the vimāna (Figs. 21 and 36, pp. 84 and 196). The term superstructure indicates all parts above the vyāli frieze of the first tala including the śikhara. The superstructure of an ekatala consists of the grīvā platform, the grīvā and the śikhara crowned by a stūpī which is the inauguration symbol of the shrine. The superstructure of a dvitala consists of a second tala which is hidden behind the hāra of the first tala, the grīvā-platform, the grīvā and the śikhara with its stūpī. The grīvā platform together with the grīvā and the śikhara form, as it were, a small ekatala, of which the grīvā forms the walls, in which niches are cut out. Usually sculptures of the vāhana of the enshrined deity are placed on the four corners of the grīvā platform. Occasionally karṇakuṭīs were preferred with on either side a tiny vāhana.

Although the shape of the śikhara will be the main subject of our discussion, we shall pay attention to the composition of the superstructure, the grīvā niches, and the elements on the corners of the grīvā platform, whenever this seems appropriate.

### 2.1 Typology.

The shape of the South Indian śikhara is rather simple. Basically it is a "cupola" on a square (Nāgara), octagonal (Drāviḍa), circular or apsidal (Vesara) ground-plan. Nevertheless, lengthy discussions have been carried on in publications dealing with the interpretation of these three Sanskrit terms in the vastuśāstras.<sup>28)</sup> At one time it was believed that Drāviḍa (the octagonal shape) stood for South Indian temple architecture, Nāgara (the square) for the North Indian styles, whereas the term Vesara was supposed to indicate the Central Indian order. At present, the general opinion is that all three terms apply only to South Indian architecture, implying that the square, the octagon, the circle and the ellips are basic shapes to be found throughout the southern half of the subcontinent.<sup>29)</sup> It should be realized, however, that it is not the shape of the

śikhara which is the main distinction between a southern and a northern superstructure but its profile which is pyramidal in the south and curvilinear in the north.

Prior to Early Coḷa times the square roof was popular in the Cāḷukya country<sup>30)</sup>, whereas the octagonal shape was most common in the Toṇḍaimaṇḍalam, where the Pallavas were lord and master. However, the rathas at Māmāllapuram prove that the Pallava sthāpatis already knew all the shapes mentioned in the vastuśāstras. The square Cāḷukya śikhara and the octagonal Pallava cupola share the remarkable features. Firstly, they are relatively small and, secondly, the kūdus are hardly as large as those on the kapotas.

The Early Coḷa architects did not exactly copy any specific example built by their predecessors, for they designed a śikhara which, first of all, was bulbous and, moreover, made a rather heavy impression because the hāra was added (cf. Pls. 1-2, 28, 29a, 33 and Fig. 36, p. 196). The third deviation from the previous styles is the size of the kūdus on the grīvā walls, for gigantic horseshoe-shaped blocks of granite crowned by a grinning siṃhamukha now take the place of the modest kūdus of former days. All this does not mean that the circular śikhara was the trade mark of the Coḷas, for octagonal and square śikharas also occur in and around the delta. Their actual number can no longer be ascertained, as many stone superstructures were completely renovated and replaced by brick constructions which are almost invariably round (Pl. 86). Consequently the delta had to be left out from our discussion of the distribution of śikhara variants. However, the pattern of octagonal and square śikharas indicated in map 12, clearly illustrates that all forms occurred in the delta.

## 6.2. Distribution of the śikhara variants; determination and description of uniform regions.

In the Tiruchchirappalli District nearly all temples have a square śikhara (map 12). Exceptions are the monuments with round śikharas along the southern bank of the Kāverī: at Nangavaram (N), Aḷḷūr (Pas)(A), Perungudi (P) and Kumāravilūr (K), and more to the south at Virālūr (V), Kiranūr (Ki), Kannanūr (Ka) and the Vijayālaya Coḷeśvara at Nārttāmalai (N), the renovated Melakadambūr not included. Octagonal roofs occur on the monuments at Aḷḷūr (Pan)(A)<sup>31)</sup>, Tudaiyār, Tirumaṅgalam (Tm) and Uyyakkōṇḍān Tirumalai (UK), together spanning one century of building activities (appendices 8 and 9).

In South Arcot the round shape occurs most frequently. Octagonal śikharas are fringe phenomena located at Dadapuram (D), Tiṇḍivanam (Ti), Kiliyanūr (K).

and Grāmam (G). The square variant can be found at Jambai (J), Bāhūr (B) and in the typical Early Coḷa shrine at Tirunāmanallūr (Tn), which, moreover, introduced the lotus adhiṣṭhāna in this area. All this indicates that the Early Coḷa śāhāpatis exported the round śikhara as well as the square one. All three types of roof were introduced in this area at the time Parāntaka I had his head-quarters near Grāmam, as illustrated by the dome over the ekatala at Erumbūr (A.D. 935), the square roof over the koyil with lotus base at Tirunāmanallūr (A.D. 935) and the octagonal śikhara over the dvitala at Grāmam (A.D. 943). It is obvious that the various shapes of the śikhara cannot contribute to a more precise dating of Early Coḷa monuments, than already arrived at in the previous paragraph.

In the Palar region the octagonal Pallava śikhara also seems to be a phenomenon which was brought to the political and physical borders of the empire. It occurs at Tiruvallam (T), Tiruvanmiyūr (Tm) and Paramēśvaramaṅgalam (P). The elephant's back (E), however, is characteristic of the area. It was preferred to the octagonal variant, either for the entire vimāna or only for the śikhara. The monuments at Tirumullaivāyil (Tv) and Tiruvorriyūr (To) are examples of vimānas which are apsidal from the upāna upwards. The smaller shrines at Tiruttāni (Tt), Vēṇṇāṇḍālam (K) and Kuvam (Ku) display a mixed form, for their garbhagṛhas are square, whereas their śikharas are apsidal. Finally, the shrine at Tiruppachchiyūr (Tp) has a rectangular ground-plan, while its superstructure is an elephant's back. The combination of different types of ground-plan for the garbhagṛha and the śikhara is not new, for the abominably ill-maintained Pallava monument at Kuram(Kr) — not far from Kāñcī — also displays a hybrid character. Since the octagonal, round, square, and the apsidal śikhara were known from the days of the Pallavas and, apparently, applied throughout the subsequent period (appendix 15, nos. 10-31), the various shapes of this element cannot be used for dating monuments in this area.

From the distribution-pattern of śikhara variants in the Tiruchirappalli District illustrated in map 12, three conclusions can be drawn. Firstly, in the area south of the undivided Kāverī we noticed an obvious preference for one particular variant. Secondly, within this uniform region deviations must be either older or younger than the monuments with the regional variant, or must have been built by outsiders. If they are older they should represent the remainders of a style which characterized the area during an earlier period; if they are younger they should represent the first examples of a later style. If they were built by outsiders, these shrines must display other foreign elements as well. Thirdly, the Kāverī region, including the zone west of the Grand Anicut, is characterized by a diversity of forms resulting in a random distribution of

square and octagonal śikharas. This implies that the area west of the Grand Dam cut should be compared with that east of the dam, but not with the region to the south of this stretch of land bordering the great river.<sup>32)</sup> This view is embodied in the variation of śikharas crowning the Sapta Sthānas. Two of the oldest vimānas in this group have a square roof (Tiruppalanam and Tillaisthānam Pl. 24). The śikhara at Tiruvēdikkudi is round (Pl. 25). The octagonal grīvā platform over the first tala of the temple at Melatiruppūndurutti which has a square layout, carries a dome. If this round śikhara is original, then it clearly demonstrates the indifference of these early Coḷa sthāpatis for a particular shape of roof. For, in this case, the square, the octagon and the circle are combined in one building. Since the grīvā is decorated with round pilasters — an aspect to which we shall pay attention presently — we are convinced, that the roof in question is the original śikhara (Pl. 29a). In the fourth place the Muttaraiyar tract south of the Kāverī should be considered a separate — undoubtedly the oldest — region characterized by square śikharas only (maps 5 and 6).<sup>33)</sup> This is confirmed by the fact that the oldest Sapta Sthāna shrines still have a square roof. A second argument is the way in which the grīvā seems to develop from a primitive, protruding slab into something which can be called a niche. We shall discuss this aspect in detail in the next section of this paragraph since it will affect the accepted chronology of the koyils in this area.

#### 6.2.1. *The Tiruchirappalli District.*

Fig. 55 shows four ways in which niches were incorporated into square and round grīvās. Firstly, a distinction should be made between the "niche" which is no more than a rectangular block of granite in which the figure of a deity has (Fig. 55b) or has not (Fig. 55a) been carved (Tiruppūr and Kaḷiyapaṭṭi, Virālūr (Pl. 17), Nārttāmalai respectively, the niche with pilasters which protrudes which provides sufficient space for a slab or an image (Fig. 55c, Panangudi and Kannanūr, Pl. 18), and the projecting niche with proper niche pilasters and, moreover, two corbels supporting the huge kūdu of the śikhara (Fig. 55d, Koḍumbālūr, Tirukkaṭṭalai, and all other shrines in the district). This last version is also characteristic of the Sapta Sthānas.

A second point concerns the size of the kūdu over this niche. It can range up to the inverted padma in which the stūpī has been placed, or only half-width of the śikhara, a size only found at Nārttāmalai and Virālūr. A third difference is the way in which the grīvā-platform is adjusted to the ground-plan of the grīvā. It can be interrupted by the slab in front of the grīvā niche (Nārttāmalai).



... (Kaliyapaṭṭi, Viśālūr and Tiruppūr) or adjust itself to the grīvā-projection (Panangudi and other monuments). This second possibility can also be realized by creating a rather large, though square platform on which the entire grīvā including its projections is placed.

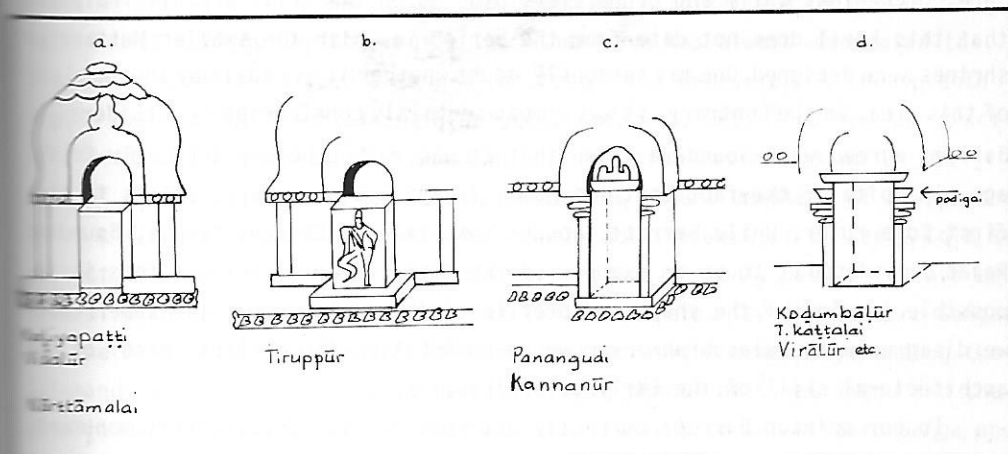


Fig. 55. Evolution of the grīvā niche in Tiruchirappalli District.

A fourth difference can be observed in the profile of the śikhara. This is generally bell-shaped, as in Coḷa temples. The only exception occurs at Nārttāmala, where it is straight and therefore comparable with the profile of Pallava śikharas.<sup>34)</sup>

The most primitive version of a niche is the rectangular slab. The adjustment of the grīvā platform to the grīvā seems to indicate a further step in the development of the temple design. The occurrence of a śikhara with a straight profile in an area where all other roofs are bell-shaped, denotes an influence from outside. Furthermore, it was pointed out in chapter three that vimānas without niches are older than those with one or more niches (Fig. 30a-b, p. 103). The combination of the primitive grīvā niches (Figs. 55a-b) with the niche-less walls of the tiny Muttaraiyar koyils is another confirmation of this view. The interpretation of the distribution-pattern in the southern part of the Tiruchirappalli District now becomes easier. We shall be able to prove that vimānas with round śikharas in this area — which were not discussed so far (appendix 14, nos. 1,7,12) were constructed either before or after the period in which square śikharas were customary (appendix 14, nos. 2-6, 8-10).



*The Vijayālaya Coḷeśvara at Nārttāmalai* (Pl. 87; appendix 14, no. 1).

This impressive monument is a III-5-c vimāna without any niches. Except for the round grīvā and śikhara it rather looks like a Pallava shrine. The hāra extends over the ardhamandapa and continues over the walls of the vimāna in an arched form. The fact that we are dealing with a sāndhāra vimāna which, moreover, has bare, niche-less walls and crude slabs high up on the grīvā are all indications that this koyil does not date from the period in which the smaller Muttaraiyar shrines were designed. One may seriously doubt whether it was built by the people of this area. On the contrary, it was almost certainly constructed by outsiders. Barrett agreed with Soundara Rajan that it was raised before the Early Coḷa age, in spite of the fact that its name, Vijayālaya Coḷeśvara, refers to the first Coḷa ruler. While Barrett thought that it is a Pallava temple, Soundara Rajan considered it to be an example of the Muttaraiyar style, but this is impossible in view of the shape and profile of the śikhara. For the same reason we disagree with Balasubrahmanyam who regarded it as the earliest proof of the architectural skill of the Early Coḷa sthāpatis.

In our opinion Barrett correctly attributed this controversial monument to the Pallava period. He compared it with a similar, but damaged sāndhāra vimāna at Alambakkam also located in the Tiruchirappalli District, be it to the north of the Coleroon. This building, situated in a village known as Dardhamamaṅgalam in the days of Āditya I and Parāntaka I<sup>35</sup>), displays the same disposition of the walls. We should like to draw attention to another ruined sāndhāra vimāna viz. the nearby Sundareśvara at Mēlappaḷuvūr which has exactly the same layout as the temple at Alambakkam. Since both monuments testify to building activities of the Pallavas at a time they were ruling this part of the country, we may assume that sāndhāras with at least five projecting parts and more than 10 pilasters (-5-c) were constructed before A.D. 850 not only in the Palar area (the Sundaravaradarāja Perumal, the Vaikuṇṭha Perumal and the Nallāsanātha at Uttaramallūr) but also farther south in the Tiruchirappalli District.

There is one point which would seem to go against this view. All three sāndhāras just mentioned were brick structures on granite bases, whereas the Vijayālaya Coḷeśvara is built entirely of granite. However, this monument at Nārttāmalai is located in an area where clay is absent. Since it stands right in front of two rock-cut temples it may well be that the material excavated from these caves was used in the construction of the Vijayālaya Coḷeśvara. We would like to add a rather bold suggestion, viz. that this Śaiva shrine — which was not raised by the Early Coḷas and obviously received its present name referring to the first Coḷa king much later — was originally meant to be

a Viṣṇu perumal orientated to the west instead of to the east, it is the  
 rock in which the two cave-temples were excavated. This orientation is  
 rather surprising. It can only be understood if we assume that all three  
 shrines were planned as one complex. If we are right, then Nārttāmalai  
 presents an example of the practice of erecting buildings for all three main be-  
 liefs at one site. For one of the two caves was originally a Jaina sanctuary —  
 turned into a Viṣṇu shrine — while the other cave has always dedicated to  
 Śiva. According to Balasubrahmanyam the latter was excavated in the seventh  
 regnal year of the Pallava king Nṛpatuṅga, i.e. A.D. 862.<sup>36)</sup> Since the practice  
 of erecting temples dedicated to Viṣṇu and the Jina was abolished in the  
 days of the Early Coḷa kings — being themselves ardent devotees of Śiva — the  
 three shrines at Nārttāmalai were definitely not the work of an Early Coḷa ar-  
 chitect. On the other hand, the Pallavas were not the only people to have been  
 liberal with regard to the three great Indian beliefs, for the Western Gaṅgas  
 and the Bāṇas — to mention only the communities of the areas surrounding the  
 Gaḷamaṇḍalam — also constructed sanctuaries in honour of Śiva, Viṣṇu and the  
 Jina in one and the same site. However, the śikharas in the Western Gaṅga and  
 Bāṇa tracts all show the bell-shaped profile and are, therefore, among others,  
 strikingly different from the type of roof common in the Pallava territory.

In view of all this we have to conclude that the Vijayālaya Coḷeśvara at  
 Nārttāmalai carrying a śikhara with a straight profile was a Pallava monument  
 built between A.D. 860-870. As from this date the origin of the Early Coḷa style  
 becomes evident, for, it is obvious that Pallava architects had been working at  
 Nārttāmalai during the reign of Vijayālaya and not more than a decade before  
 Aditya I came to power. They probably trained local craftsmen while constructing  
 among others these three shrines. The moment they were commissioned by Aditya I  
 to erect karrali or stone temples in the granite-less delta, these early sthāpa-  
 tis with their local (Muttaraiyar) trainees were confronted with a deficiency  
 in building-material. Furthermore, they were specifically requested by the king  
 to accommodate (three) deities in the exterior walls of the vimāna, as all later  
 Coḷa kings did (p. 179). So, they reduced the height of the sanctum — normally  
 a tritāla as represented not only at Nārttāmalai but also in the Palar area  
 where not long before the Vijayālaya Coḷeśvara was designed the large buildings  
 at Uttaramallūr were completed. Moreover, they reduced the complicated layout of  
 these buildings when they started on the shrine at Tiruppalanam.

This reduction process continued in the delta where scarcity of granite  
 was indeed responsible for the — in a developing style — rather remarkable de-  
 clining series of III-5-c, II-4,3-b, II-2-b and I-2-a vimānas. In this connect-

ion it will be pointed out further on that the temples constructed between A.D. 895-910 in and around Koḍumbāḷūr, situated in a granite area, are all dvitalas, as if to indicate that only the distance from the site to the source of granite was a criterion in the decision of an architect to raise an ekatala or a dvitala shrine.

Before turning our attention to these not yet discussed, tall monuments in the Tiruchirappalli District, we shall first continue our survey of the much smaller but not necessarily older building at Kannanūr.

*The Subrahmaṇyeśvara at Kannanūr* (Pl. 88; appendix 14, no. 7).

The Subrahmaṇyeśvara with its round śikhara cannot be contemporary with the koyil just discussed, nor with the Muttaraiyar shrines characterized by square roofs. This can be concluded not only from the bell-shaped profile of its śikhara, but also from the way the kapota is executed. We may elaborate this second point, using as evidence particular features of the Vālīśvara at Tiruvālīśvaram, of the Talinātha koyil at Tiruppattūr and of the Sundareśvara at Tirukkattāḷai. Geographically, the last two monuments are located not far from Kannanūr; structurally, the four temples represent different periods. However, they have two features in common, i.e. the row of running animals over the kapota instead of the normal, seated vyālis, and the kūdus which are small circles. Soundara Rajan dated these monuments as follows (their layout according to our typology has been added between brackets):

Kannanūr	A.D. 845-860	(I-1-a/1-A-0);
Tiruppattūr	A.D. 890	(II-3-b/1-B-?);
Tiruvālīśvaram	A.D. 890	(II-3-b/BN-A-0); BN=blind niche;
Tirukkattāḷai	A.D. 915	(II-2-b/1-A-0).

At Tiruvālīśvaram not one inscription is earlier than the days of Rājarāja II. At Tiruppattūr a record dated in the 4th regnal year of the Pāṇḍya king Maruṭtadayan (A.D. 868) mentions the Karrali Batharar, i.e. the god of the stone temple. This inscription does not necessarily refer to the present building. At Nemmadi, for instance, the same king is mentioned in a record dated A.D. 872, and engraved on the walls of the Airāvateśvara, though it refers to a Pidari shrine, which no longer exists.<sup>38)</sup> In such cases there are two alternatives. Either the stone with the inscription was re-used in the wall of a much later temple, or the shrine referred to simply disappeared and the inscription was always at its present location on another building which is therefore contemporary with the inscription. This means that the shrine at Tiruppattūr can also be younger than its oldest record which may refer to a koyil no longer in existence.

In our opinion all monuments with the unusual kapota should be dated later than A.D. 860. We shall substantiate this point by comparing the koyil at Kannanūr. with the small shrine at Tiruppūr (appendix 14, no. 4), a bonafide Muttaraiyar monument with a square, bell-shaped śikhara and bare walls. The dissimilarity of the Subrahmaṇyeśvara with a Muttaraiyar building will then become evident (Pl. 89). The shrine at Tiruppūr shows the same projecting part under the grīvā niche as the temple at Kannanūr. However, this is the only similarity. In all other respects the two buildings belong to different periods or to a different regional idiom. At Tiruppūr (Fig. 55b, p. 279) the vyāli frieze follows its own, straight course, whereas at Kannanūr (Fig. 55c, p. 279) it follows the contours of the grīvā niche. But the most remarkable difference — apart from their śikharas — is that between the shapes of their kūḍus which are half open at Tiruppūr but closed and placed above the kapota edge at Kannanūr. Moreover, the shrine at Kannanūr has niches complete with half niche pilasters, lintels and makaratorṇas. The koyil at Tiruppūr displays none of these fundamental details. The geographical location of Kannanūr (Map 3) explains the peculiarities of this fringe temple, for it is at best a mixture of two styles, with basic concepts originating in the Pāṇḍya country to the south, which were enriched by the Early Coḷa concept of the niche. Soundara Rajan, on the contrary, classified the koyil at Tiruppūr as Pāṇḍya and that at Kannanūr as Muttaraiyar. This would imply a reversal of the political territories north and south of the southern Vellar which is impossible. Moreover, we do not believe that the niches in the vimāna at Kannanūr are due to either Pāṇḍya or Muttaraiyar influences. Niches were not applied in the other koyils near by, and the Vālīśvara at Tiruvālīśvaram has only blind niches (Pl. 21b). However, the presence of inscriptions on the Subrahmaṇyeśvara at Kannanūr dating from the days of Āditya I and mentioning his regnal years do indicate that "...twelve miles south of the southern Vellar...the traditional boundary between the Cholas and the Pandyas..."<sup>39</sup> the expansive power of the new kingdom was felt and registered. Now the Coḷas built temples with round śikharas and niches. The political situation thus seems to confirm our explanation of the stylistic anomalies in the Subrahmaṇyeśvara. The niche and the round śikhara were adopted from the north; the frieze of running animals and perhaps the tiny, almost closed kūḍus from the south as we shall see further on (pp. 292-93).

In view of its simple I-1-a/1-A-0 layout and the crudeness of its details we suggest that the Subrahmaṇyeśvara was constructed between A.D. 870-900. The far more developed style of the shrine at Tirukkaṭṭalai (appendix 14, no. 8) dated ca. A.D. 910-15 by some authors and between A.D. 895-910 by us, seems to justify our suggestion. Since the shrines at Kannanūr and Panangudi (Pl. 18; appendix



14, no. 6) both display niches in the vimāna and an extremely crude decoration. We assume that the latter also dates from A.D. 870-900. Inscriptional evidence proving otherwise is absent. The simplicity of both structures can be explained by the political collapse of the Muttaraiyars, for they were expelled from their most fertile lands east of the Grand Anicut by Āditya I.

In contrast to the shrine at Kannanūr, the koyil at Virālūr (appendix 14, no. 12) cannot be attributed to the 9th century. In order to demonstrate its 10th century—and moreover Early Coḷa—character in spite of its location right in the centre of the Muttaraiyar area, we shall first briefly discuss the Muttaraiyar buildings at Kiranūr in combination with other bonafide Muttaraiyar shrines. They all have a square roof and are attributed to A.D. 845-860 by Soundara Rajan, which, in our opinion, seems to be correct.

*The Uttamadanīśvara at Kiranūr* (Pls. 90a-b; appendix 14, no. 5)

This shrine has been renovated from the floor upwards, for its pranāla is located in the jagatT. We have to keep in mind the possibility that the present characteristics of this koyil are based on its original appearance. However, nothing can be said with regard to the grīvā niche, because its grīvā is round, whereas the grīvā platform is a square. In view of the fact that the original śikhara must consequently also have been square, we are then confronted with a niche-less vimāna I-1-a/0-A-0, standing on a IB1 base. This is interesting, for the only other koyil with a similar base is located in the old tract of the Muttaraiyars along the borders of the Kāverī. It is the small monument in Tirukāṭṭuppaḷḷi (p. 149, Pls. 58a-b) near Śendalai, once a capital of the Muttaraiyars. It concerns a I-2-a/0-A-0 koyil, crowned by a square roof. The (II)2-a/0-A-0 vimāna at Śendalai also displays the IB-component in its base (Fig. 43a, p. 150). Unfortunately, the superstructure is much later. Now, the Muttaraiyars fell under the jurisdiction of the Pallavas—as is obvious from, for instance, the names of villages after Pallava kings as we saw at Alambakkam (p. 280)—who were specialized in designing and carving IB1 bases (map 9), of which they produced beautiful examples (Pl. 72a). Moreover, the maṇḍapa built in front of the cave temple at Nārttāmalai, ca. A.D. 862 displays the same type of base—the only part left of the original hall—and was executed by experienced Pallava architects, or by Muttaraiyar sthāpatis working for the royal family of the Pallavas. In our opinion the otherwise almost unique IB1 adhiṣṭhāna at Kiranūr in the southern parts of Tamil Nāḍu can only be explained by contacts between both people. Consequently, the original koyil at Kiranūr must have been built during the period the Pallavas were ruling these parts, i.e. before the battle of Tirupattinam.



ayan (A.D. 884 or 890). It was, in fact, probably constructed before Āditya I took over the Muttaraiyar area around Tañjāvūr from the Pallavas, i.e. around A.D. 870. The same applies to the dates of the monuments at Tirukkāṭṭuppalī (appendix 9, no. 25), Kaḷiyapaṭṭi, Viśālūr and Tiruppūr (appendix 14, nos. 2-4).

Since the grīvā niches in the last three buildings all belong to the rudimentary type (Figs. 55a-b) covered with a square śikhara and these shrines — including that at Kiranūr — belong to the same primitive category, viz. I-1-a/1-A-0, it is obvious that the I-2-b/1-A-0 temple at Virālūr with a round śikhara and full-fledged grīvā niches cannot be included in this group. On the other hand, it does not seem to belong to any other category represented in the Tiruchirappalli District. The dating of this koyil is, therefore, rather complicated as will appear from the following discussion.

*The Bhūmīśvara at Virālūr* (Pl. 91; appendix 14, no. 12).

This small koyil deviates from all the above mentioned monuments in three respects, viz. its I-2-b vimāna, which is unique in this region (map 5); its fully developed grīvā niche (Fig. 55-d); and its round śikhara. In view of its grīvā niche it cannot be contemporary with the koyil at Kaḷiyapaṭṭi and other smaller shrines with a square roof. Therefore, it is either contemporary with the dvitalas in this region, all having square śikharas (appendix 14, nos. 8-11), or it belongs to another period. We believe there are sufficient arguments to date this ekatala in the second quarter of the 10th century, since it has too many pilasters for an ekatala. The few inscriptions on the building all date from the 10th century but do not reveal its exact date, so we shall have to determine this by the architectural style.

There is one significant detail in this otherwise undecorated Śaiva koyil, viz. the presence of podigais under the kūḍus of the śikhara. We can only understand these superfluous podigais when we turn our attention once more to the Sapta Sthānas. Most of these buildings are dvitalas in which the central part of the walls projects. The podigais on the corners of these central bays are cut into the shape of a cross (Pl. 25), whereas in a -1- ground-plan they are flat T-shaped and unobtrusive parts of a temple wall. These striking cross-shaped podigai-blocks under the first kapota are repeated under the protruding part above the second kapota. The architects of the Sapta Sthānas extended this concept even to the grīvā niche, apparently in order to create an impressive regularity in the vertical composition of their temples. This idea of incorporating corbels into the grīvā niche must therefore have originated on a dvitala in which at least one part of the wall protruded. The new concept of śikhara kūḍus

carried by podigais instead of the usual lintels was immediately copied, for all other koyils along the Kāverī west and east of the Grand Anicut and in all three temples at Koḍumbāḷūr the podigais are incorporated into the design of the grīvā niches. This even occurs in cases where it is unnecessary i.e. above kapotas which do not have a central protruding part (Śrīnivāsanallūr, Nangavaram). However, all these shrines are copies of the monuments at Tiruvēdikkudi and Tiruchchātturai (Fig. 39), except for the two Mūvar koyils at Koḍumbāḷūr which resemble the Pañcanāḍīśvara at Tiruvaiyāḷū.

The ekatala at Virālūr is not a copy, but it is a deviation as it has no pilasters on each wall. It does not seem likely that its architect invented a completely new addition to a grīvā niche in a design which could never have been its source of inspiration. It is equally unrealistic to consider the impure I-2-b vimāna to be contemporary with the regular and well-balanced II-2-b, II-3-b and I-2-a vimānas, characteristic of the period between A.D. 870-900.

In view of all this, as well as the presence of a round śikhara on a temple located in an area dominated by constructions with square roofs, and, moreover, situated near Koḍumbāḷūr, we must conclude that the koyil at Virālūr was built after the time in which normally monuments with square śikharas were erected, and during which podigais above grīvā niches became a common feature. When did this specific period end? The dates suggested for the II-2-b monuments (see appendix 14) show that there is hardly a consensus of opinion. Since we do not agree with the controversial attributions we have to analyse the devotional just mentioned before we can decide on the date of the shrine at Virālūr.

#### *The Sundarēśvara at Tirukkattalai.*

This koyil was dated by Balasubrahmanyam ca. A.D. 874 on the basis of a Rājāsari record of the regnal year 3. According to Soundara Rajan this Rājāsari is Gaṇḍarāditya. If this old inscription could be eliminated we would have a series of records running from A.D. 909 or 915 onwards. The building resembles that of Tiruchchātturai except for the fact that its makaratorṇas are better designed and carved. It derives its individuality from features already known from the temples of the Pallavas, viz. the presence of rearing vyālis between the podigais dominating the corners, although these are also present on the palagais of the Śrīvara at Kumbakonam (Fig. 50, p. 250, Pl. 30). The lintel under the makaratorṇas decorated with bhūtagaṇas, hamsas and the usual lotus petals is indeed unique. This feature, as well as the lively frieze over the kapota, shows the same freedom in ornamental details as for instance on the shrine at Kannanūr, but the basic shape of the building was copied from the Early Coḷas. This Coḷa influence

is confirmed by the presence of another feature, viz. the fact that the vari — running above the frieze of galloping animals — is interrupted by the niche in the śālā, but present everywhere else. The same application of the vari can be noticed at Tiruchchendurai and Nangavaram, on the two Mūvar koyils and the Mucunandesvara, all three at Koḍumbāḷūr, at Chittūr and probably also at Aḷḷūr, although in the last case a huge group of plastered sculptures obscures the view. The Coḷeśvara at Kilaiyūr with a round śikhara demonstrates the same feature while on the Agastyeśvara, situated in the same compound and crowned by a square roof, the vari is interrupted by the entire śālā.

The dvitalas among the Sapta Sthānas show five different ways of applying the vari on the hāra (Fig. 56, pp. 288-89, Pls. 23-26, 28). At Tiruppalanam the vari is interrupted and the niches in the karṇakuṭīs as well as in the śālās have proper niche pilasters. The ugly plastered and fairly modern images in these niches are too large for the originally small koṣṭhas and consequently, obscure the composition. At Tillaisthānam and Tirukkaṇḍiyūr the vari is only present on the karṇakuṭīs and on the śālās. The śālā niche of the former, however, does not show this ornament. At Tiruvēdikkudi it is absent on the entire śālā and at the niches of the kuṭīs and connecting walls, as on the Agastyeśvara at Kilaiyūr just mentioned. At Tiruchchātturai the undamaged vari runs uninterrupted along all parts of the hāra. In contrast to the monument at Tiruppalanam the niche pilasters are here absent in the karṇakuṭīs and the śālās. The concept of a vari interrupted by the śālā-niches was almost certainly applied on the Pañcanādīśvara at Tiruvaiyārū, although this cannot be proved, since its superstructure has been renovated. In any case, the śālā over the first kapota of the shrine at Tiruvēdikkudi shows this arrangement. Here the śālā consists of two parts, the lower part decorated by pañjaras, the upper part by a niche cutting through the vari. Since this variation in different parts of the superstructure is striking as far as the Sapta Sthānas are concerned, and since the uniformity in the different parts of the superstructure seems to be restricted to dvitalas built in the area south of the undivided Kāverī, we may as well dwell upon this aspect a little longer. Surveying the roofs of these buildings, a few more peculiar features can be noticed.<sup>41)</sup> In the first place there are "round shrines"<sup>42)</sup> on either side of the śālās of the monument at Tirupallanam, on the second tala walls at Tillaisthānam, at Tiruchchātturai and on one of the Mūvar koyils at Koḍumbāḷūr (Fig. 56a-b), secondly, we notice dvārapālas on the second tala walls at Tiruvēdikkudi, Tirukkaṇḍiyūr, Nemam and Tiruchchendurai. In the third place, all temples have either pañjaras, or slabs or niches in between the karṇakuṭīs and the śālās. In view of all this the dvitalas under discussion

can be characterized as shown below.

Fig. 56a. Characteristics of the superstructures on vimānas built in the Kāvēr area and in the Tiruchirappalli District between A.D. 870-900.

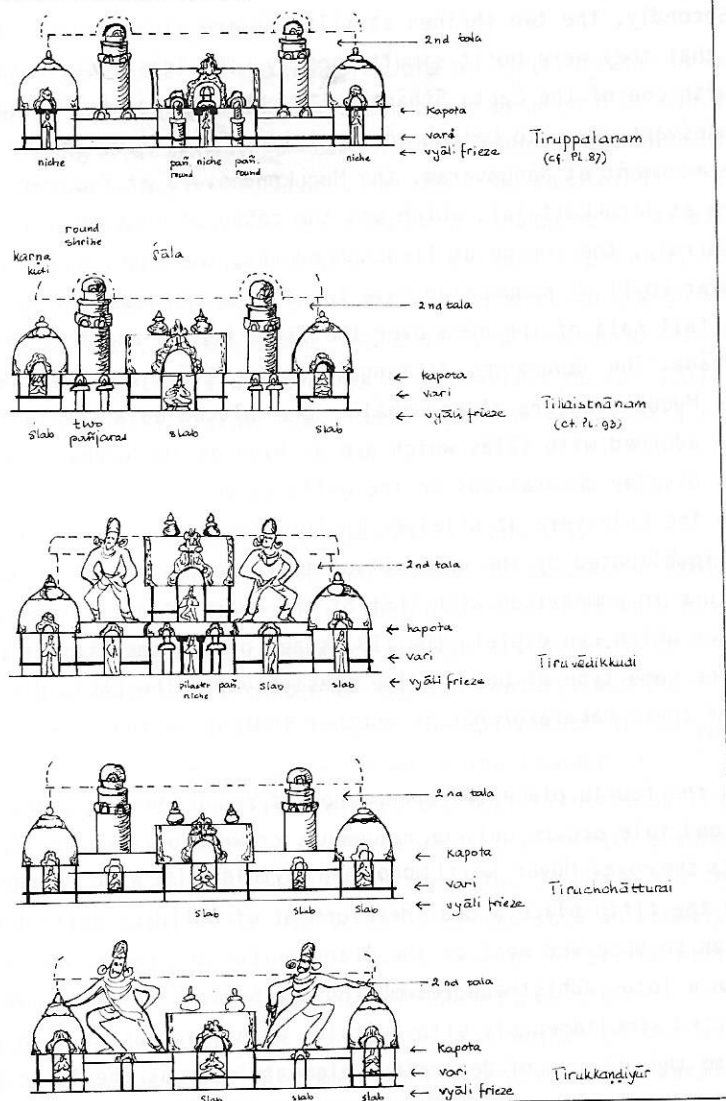
name of the village <sup>1)</sup>	first hāra wall śālā	second hāra wall	vari
Tiruppalanam (Pl.23)	niche + two plain round shrines	round shrines	interrupted by all niches
Tillaisthānam(Pl.24)	slab	two pañjaras round shrines	not along wall space and slab
Tiruvēdikkudi(Pl.25)	two stories "niche" two pañjaras	dvārapālas	not along śālā and slab
Tiruchchātturai(Pl.26)	slab	slab	round shrines uninterrupted
Tirukkaṇḍiyūr (Pl.28)	slab	slab	dvārapālas not along wall space
Kumbakonam (Pl. 92a)	niche	niche	figure one slab interrupted by all niches
Śrīnivāsanaḷlūr(Pl.31c)	niche	two pañjaras	? interrupted by niche and pañjaras
Tiruchchennampūṇḍi (Pl. 35a)	slab	two slabs	- interrupted by śālā slab
Nemam (Pl. 54)	slab	slab	dvārapālas interrupted by all slabs
Tiruchchendurai	two stories niche	two slabs	slab interrupted by the śālā niche
Kilaiyūr(A)(Pl.33a)	two stories niche	slab	- not along śālā
Kilaiyūr(C)(Pl.33b)	slab	slab	- interrupted by śālā niche
Koḍumbāḷūr (Mv)(Pl. 93)	two stories niche	two slabs (removed)	round shrines (slab) interrupted by śālā niche
Nangavaram	slab	slab	- interrupted by śālā slab
Koḍumbāḷūr (Mc)	niche	pañjara	- interrupted by śālā niche
Tirukkattalai } Chittūr }	niche niche	slab slab	- - interrupted by śālā niche

<sup>1)</sup> as the dvitalas at Aṇḍanallūr and Aḷlūr are either modern or too much restored it is impossible to trace the original features in detail. The superstructure of the dvitala at Chittūr has disappeared except for its wall which allows us to assume the former presence of niches and slabs.

From this excursion into the development of the superstructure some conclusions can be drawn.

Firstly, all dvitalas built during the first two phases (Fig. 42, p. 288)

Fig. 56b. Characteristics of the superstructures on vimānas built in the Kāverī area and in the Tiruchirappalli District between A.D. 870-900.



From this excursion into the development of the superstructure some conclusions can be drawn. Firstly, all dvitalas built during the first two phases (p. 215)



show experiments with the vari over the prastara. The koyils constructed during the third phase (Fig. 42) are identical, i.e. they all have a vari interrupted by the central śālā niche, a concept which was also used in the experimental design of the Śaḍayar Koyil at Tiruchchennampūṇḍi.

Secondly, the two shrines at Kilaiyūr are almost certainly not twins in the sense that they were built simultaneously. The Agastyeśvara has far more affinities with one of the Sapta Sthānas, i.e. the shrine at Tiruvēdikkudi, whereas the Coḷeśvara seems to belong to the third phase, i.e. to the group consisting of the monument at Nangavaram, the Mucukundeśvara at Koḍumbālūr and the Sundaresvara at Tirukkaṭṭalai, which was the cause of this long discussion.

Thirdly, the shrine at Tiruchchendurai, the Agastyeśvara at Kilaiyūr and the Mūvar koyil at Koḍumbālūr have two things in common. They expose the unusually tall śālā of the hāra over the first kapota and they stand on a lotus adhiṣṭhāna. The monuments at Nangavaram (Chittūr) and Tirukkaṭṭalai as well as the Mucukundeśvara at Koḍumbālūr are placed on a straight IA2a base and are adorned with śālās which are as high as the karnakuṭīs. None of these shrines display decorations on the walls of their second tala. The argument to include the Coḷeśvara at Kilaiyūr in this last group in spite of its IIB1 base can be invalidated by the observation that the design of its superstructure is too mature in comparison with that of the nearby Agastyeśvara and that the only reason which can explain the IIB1 shape of its base is the presence of exactly the same type of base in the Agastyeśvara. The basic difference in the shape of their makaratorāṇas is another indication that the Coḷeśvara was built later.<sup>43)</sup>

In the fourth place the phenomenon of "round shrines" added to the walls of the second tala occurs only on monuments crowned by a square śikhara and this connects the royal Mūvar koyil more than anything else with the royal Sapta Sthānas.

In the fifth place a dual development of building activities in the third phase can be observed west of the Grand Anicut and south of this tract, for dvitalas on a lotus adhiṣṭhāna resembling the Sapta Sthānas in many respects were constructed simultaneously with dvitalas displaying a far more severe appearance due to the absence of decorative elements such as the lotus base, the frieze, the dvārapālas and the "round shrine" attached to the walls of the second tala. Moreover, the dvitalas belonging to this second rather plain group resemble each other with regard to their kāls, for only the square type of kāl was applied without further additional ornaments. However, almost all monuments mentioned under nos. 1-26 in appendix 14 show the same dull, square type of pilasters. In view of the fact that they are located in a tract bordering the

area in which uniformity seems to have been a curse (Fig. 50, p. 250) it looks indeed as if trainees were commissioned to execute a standard type of shrine throughout the country-side around Koḍumbāḷūr which was the domain of the Irukkuveḷs.

Concluding our discussion of the Sundaresvara at Tirukkattalai we date this shrine together with the Mucukundesvara at Koḍumbāḷūr between A.D. 890-910, a period in which the koyil at Nangavaram came into existence (appendix 9).<sup>44</sup> Since the beautiful monument in Tiruchchendurai was also completed in this period, we are convinced that there existed a workshop responsible for all these buildings. Its top-class artists were assigned to the more important, royal, commissions, while the less qualified artisans were ordered to design and build the more modest structures. Of the stone temple at Tiruchchendurai we know, for instance, that it was a princess who ordered its construction (p. 110), and the Mūvar Koyils, which we shall discuss now, were also the result of a royal initiative.

*The Mūvar Koyils at Koḍumbāḷūr* (Pl. 93; appendix 14, no. 10).

The discrepancies in the dating of these two vimānas at Koḍumbāḷūr covers nearly one hundred years. We shall demonstrate that both monuments were built between A.D. 890-910. This is not a compromise between the opinions of Soundara Rajan, who attributed them to the middle of the 9th century, and Balasubrahmanyam and Barrett, who dated them ca. A.D. 950. The difference of opinion results from the interpretation of an inscription in which the founder of this temple-complex is mentioned, viz. Budi Vikramakesari, the most illustrious Irukkuveḷ ruler. Before going into this matter, we first want to eliminate a simple locational problem. The lotus adhiṣṭhāna on which these two II-2-b/1-A-0 shrines stand, is a regional aberration (map 9). Normally we use such an anomaly in a distribution-pattern to date the shrine either before or after the period in which the specific regional variant dominated. However, we are here dealing with a large temple-complex which was located in the capital of the Irukkuveḷs and which originally consisted of three main shrines and many parivārālayas. We can well imagine that Budi Vikramakesari was anxious to construct buildings which were more beautiful than any other known temple in his territory at that time. The lotus adhiṣṭhāna was and still is the most splendid and elegant base ever designed in these parts of India. He must have noticed and admired the Pañcanādīśvara while visiting his Coḷa liege lord at Tiruvaiyāṟū. So, after the departure of Āditya I to the northern part of Tamil Nāḍu he commissioned the

most highly skilled men available to raise in his capital at Koḍumbāḷūr massive monuments in honour of Śiva, which copied the imperial example. As a result of this the best artists were occupied for years leaving the (re)construction of other koyils in the area to the less well-trained workmen. The shrines at Koḍumbāḷūr encountered no problems in erecting the walls of both shrines. All features, especially the makaratoraṇas, were obviously copied from the Sthānas. The only difference which we observed between the two surviving koyils concerns the decoration of the walls of the second tala. One of the buildings displays the small "round shrines", whereas the other has slabs in the same place. These "round shrines" are no longer exact copies of the Coḷa example, but have meanwhile deteriorated for they do not carry the tiny ekataḷa on their pretty, circular kapota but have merely a neck which disappears under an almost closed curtain of the kūdu. In our opinion this feature reflects a later stage in the development of this Early Coḷa element, because it demonstrated a devaluation of the remarkable, round, and complete shrine displayed, for instance, on the walls of the Āpatsahāyeśvara at Tiruppalanam. In view of this the Mūvar koyils should be dated slightly later than the monuments commissioned by Āditya I. The following argument may further substantiate this attribution.

The shrines at Koḍumbāḷūr are witnesses of an affluent society of days long passed, and reveal an infinite love for details and great skill in expressing this feeling in stone. Most of the temples along the Kāverī constructed immediately after or still during the completion of the Sapta Sthānas, show the same fondling of the solid building-material (Fig. 42, p. 215, second phase). Now, abstract concepts can be transferred and copied, but the skill and ability to carve out these abstractions in hard stone cannot. This dexterity only develops through practice.

Dating the Mūvar Koyils around A.D. 950 creates two problems. In the first place, there are no contemporary temples displaying a similar degree of skill. The second problem is that the temples built or renovated during this period all demonstrate a coarsening of details and, moreover, have different layers. As, for instance, the koyils at Tiruppalturai (pp. 140-41), and Tiruverumbi (pp. 118-20) both located in the Tiruchchirappalli District, and the small one at Tirukkaliṭṭattai in the delta (p. 139). These problems do not arise when the Mūvar Koyils are attributed to ca. A.D. 900.<sup>45</sup> Dating these koyils around the middle of the 9th century, as Soundara Rajan did, again creates problems. Compared these Mūvar Koyils with the Pāṇḍya style of the monuments at Kaluṅṅalai and Tiruvālīśvaram, and with the Aivarkoil at Koḍumbāḷūr and the Talinai at Tirupattūr. However, we wonder how the essential differences could then

the following details could then be explained: the shape of the kūdu, the spacing of the vyālis, the profile of the kapota as displayed at Kaḷugumalai <sup>46)</sup>; the shape of the kūdus, the profile of the kapota, the blind niches in the vimāna covered by either a small kapota or a flattened makaratoraṇa, the profile of the adhiṣṭhāna, the disappearance of the wall of the second tala behind the hāra, the galloping animals instead of vyālis, all of which are style characteristics of the Vāliśvaram at Tiruvāliśvaram <sup>47)</sup>; the ordinary IA-component of the Aivar-koyil at Koḍumbālūr, the only part left of this monument <sup>48)</sup>; the shape of the kūdu, the profile of the kapota, the presence of a vari over an IA2a adhiṣṭhāna, the pañjaras on the walls of the first tala, all characteristic features of the Talinātha at Tiruppattūr. <sup>49)</sup> Soundara Rajan did not mention these differences and his only argument, viz. that Āditya I came to power only after the battle of Sripurambyam and therefore could not have commissioned the row of Śiva koyils along the Kāverī, is not very convincing. <sup>50)</sup> Personally, we believe that Āditya I must have been a powerful king at the time of that battle, for he could organize an army, he could also organize building activities.

Barrett's arguments are based on a wrong assumption, or at least he should have tackled the problem from two sides. He believed that the Mūvar koyils belong to (his) second phase, i.e. between A.D. 940-970, because "The sculptures, ...do seem to be a version, ...of the images at Tiruvaduturai and Punjai." <sup>51)</sup> A comparison with the icons at Tiruchchendurai and with those on the superstructures of the shrines at Kumbakonam and Puḷḷamaṅgai would have been more revealing. Because we fear that Barrett, for some unknown reason, accepted Balasubrahmanyam's arguments, we wonder what kind of reasoning the latter produced to date these temples so late.

Balasubrahmanyam's main source was the inscription of Budi Vikramakesari to which he devoted an impressive essay trying to discover its secret. In fact, the record is a genealogy of the Irukkuveḷ chieftains ending with Budi Vikramakesari. Unfortunately, the scribe omitted to tell us when the king lived, but he calls him the ruler who conquered the Pallavas on the banks of the Kāverī <sup>52)</sup> and adds that Vīra Pāṇḍya who "took the head of the Cola", was his enemy. <sup>53)</sup> The first part of the sentence can only be understood if he participated in the battle at Sripurambyam, or any previous battle, for after that catastrophe nothing was ever again heard of the Pallavas in this part of India. <sup>54)</sup> Now, we do know that Āditya I followed them right into their own territory, beating them there <sup>55)</sup>. The second part of the sentence implies that the unknown defeated Coḷa king fought together with Budi Vikramakesari against the Pāṇḍyas and was killed.



As the Pallavas are mentioned, the Coḷa ruler could be either Vijayālaya or Āditya I. The latter conquered almost the entire Tonḍaimaṇḍalam, so the Coḷa king must have been Vijayālaya about whose death nothing is known except that it must have occurred ca. A.D. 870. So far there is no problem. It seems to us that we are dealing with the understandable wish of an elderly king who more than twenty years afterwards (i.e. A.D. 890) still boasted of his victorious day on which he was instrumental in breaking the force of the Pallavas, while one of his allies in another battle was killed by his powerful Pāṇḍya enemy. However, Balasubrahmanyam felt that no significance whatsoever should be attached to the fact that Budi Vikramakesari considered it worthwhile to report his victory over the Pallavas. According to him the only possible identification of Vīra Pāṇḍya could be the contemporary of Āditya II. We fully realize that we wrong Balasubrahmanyam by not going into his patient unravelling of family relations and political alliances, but we believe that he started from the wrong premise, when he assumed that Vīra Pāṇḍya could only be the well-known king of that name. In a script in which capitals are missing, Vīra Pāṇḍya can be read as vīra pāṇḍya, Vīrapāṇḍya or even as vīra Pāṇḍya. According to us the last possibility is the most likely, for Budi Vikramakesari probably wanted to indicate merely that the Pāṇḍyas were mighty (vīra). It should be noticed that he did not mention the king of the Pallavas either. Why should he omit the name of his worst enemy (the Pallava) and that of his best friend (the Coḷa) and disclose only that of a minor enemy, i.e. Vīra Pāṇḍya?

This is a rather brief attempt at interpretation of a controversial inscription and we are quite conscious of the fact that it is not given to a epigrapher to propose a definite solution of a problematic record and to pass judgement over the interpretations of talented epigraphists. Yet, we believe we are right for we started out from the architectural style of the temple and subsequently discovered that the inscription, which can be interpreted in different ways, allows for a dating around A.D. 900. On the other hand, Balasubrahmanyam's point of departure was an equally stubborn assumption but he is faced with the problem of how to fit the two temples — impressive as they are due to their ornamentation — into the dull architectural style of the middle of the 10th century.

We should like to conclude this discussion of the beautiful Mūvar Koyil by stating that Budi Vikramakesari played a nasty trick with us by naming himself Āditya — after either Āditya I or II — and Parāntaka — after either Parāntaka I or II — as the record discussed above informs us. Fortunately, Budi Vikramakesari left us a monument which speaks a rich language through its style, although it may



middles by way of its inscription.

*The Agnīśvara at Chittūr* (Pls. 94a-b; appendix 14, no. 11).

This koyil appeared in a few previously discussed maps as an anomaly in two respects: it has a niche in its ardhamāṇḍapa (map 6 and Table B, p. 154) and it has octagonal pilasters on the walls of its vimāna (map 11 and Table E, p. 248). The first irregularity is caused by a badly executed renovation. This is demonstrated by the way the vestibule is attached to the vimāna. The pilasters standing on the corners of the ardhamāṇḍapa do not display their character of corner pilasters sufficiently clearly. They should either be attached to the corner pilaster of the vimāna or not be there at all. Moreover, the corbels of the ardhamāṇḍapa are angular, whereas those occurring on the vimāna are throated. So the present hall is obviously a later addition. As we have noticed at for instance Tiruverumbūr, niches were often incorporated in the new parts of a renovated shrine (p. 120). The vari above the vyāli frieze of the prastara is still undamaged. It runs the same course as at Tirukkaṭṭalai and Nangavaramas well as on the Mucukundeśvara at Koḍumbālūr. Consequently, the original II-2-b koyil must have had a 1-A-0 layout. It resembles the last mentioned shrine in every respect except for the octagonal shape of its kāls. The only other koyil with a complete set of such pilasters is located at Nangavaram which has the same simple appearance as the other two monuments. In an area characterized by square walls deviating forms should be interpreted as an indication that the building is comparatively late for there are no arguments to date the two shrines at Nangavaram and Chittūr before the period in which the square pilaster was popular. Therefore, we propose to include the Agnīśvara in the group of dvitalas built by the less skilled craftsmen of the workshop which produced the other dvitalas. This implies that this temple was also raised between A.D. 890-910. There is no inscriptional evidence contradicting this point of view.

A few monuments have not yet been discussed (appendix 14, nos. 23-25). They are the ekatalas in the eastern part of the Tiruchirappalli District at Kumāraiyālūr, Śōmūr and Perungudi, all indicated in map 5 and Table A as having a design deviating from the regional type. The small shrine at Alambakkam not far north of the Sapta Sthāna area was not taken up as it did not appear on this map as an anomaly. Now that we know more about the architectural development in the Tiruchirappalli District than in the first pages of chapter three, we can finally try to settle these loose ends, starting with the temple which shows closest affinities with the Sapta Sthānas.

*The Kailāsanātha at Alambakkam* (Pls. 95a-b; appendix 14, no. 22).

This incomplete shrine has retained some of the refined features common to the monuments built during the days of Āditya I. Due to its geographical position a comparison with the shrine at Melatiruppūndurutti seems permissible (Pls. 29a-b) with regard to their first talas. These indeed resemble each other including a feature which was introduced at Melatiruppūndurutti, the only ekatala among the Sapta Sthānas, i.e. the podigai under the lintel over the niche in the walls of the vimāna (Pl. 29b). A few other monuments of the same period also have this entirely superfluous ornament for it was applied in the dvitalas at Aṇḍanallūr, Nangavaram, Tirukkaṭṭalai, Allūr, and on the Agastyeśvara at Alaiyūr (A.D. 890-892). Later on it appears also on the ekatalas at Perungudi, Sōmūr, Tirumayānam (A.D. 935-940) and Kīlappaḷuvūr (A.D. 984), and on the trikoyils at Manampādi (A.D. 988-990) and Dadapuram (A.D. 1000-1006). From this list of examples it is clear that the tiny podigais incorporated in the framework of the elaborate Early Coḷa niche cannot be associated with either a particular regional preference or with a specific period. Since inscriptional evidence is lacking we can only determine the date of the Kailāsanātha at Alambakkam by way of its style and we therefore believe that this damaged ekatala was also built by the less trained craftsmen who raised the dvitalas on a IA2a base in the Tiruchirappalli District (between A.D. 890-910). Being an ekatala, it is the counter part of the shrine at Melatiruppūndurutti which also shows this peculiar, superfluous podigai.

*The Agnīśvara at Kumāravayalūr* (appendix 14, no. 23).

This shrine can hardly be studied as it is hidden behind all kinds of additional walls and other obstructions, but its extremely small size is obvious. Before renovation its tiny I-2-a layout cannot have included niches in the central bays. The present niches—added when the shrine was rebuilt—do not contain images and are so narrow that they almost look like pañjaras or blind niches. The temple reminds us of the Agnīśvara at Tirukkāṭṭuppaḷḷi (p. 144), which demonstrates the same problem. The renovators of this last shrine never found a proper solution for the problem (Pl. 58b), but at Kumāravayalūr a more successful attempt was carried out. However, it is clear that without removing the entire base of an old Muttaraiyar temple, it is impossible to create sufficient wall space for proper niches in the new walls. So, the Agnīśvara at Kumāravayalūr must also have been an old Muttaraiyar building, dating from before A.D. 870. At present it is a I-2-a/1-A-0 on a IA2a base, but originally it must have had a 0-A-0 layout.

*The Śiva koyils at Sōmūr and Perungudi* (Pls. 96-97; appendix 14, nos. 24-25). These two shrines do not have the vimāna design common in this region. As I-1-a buildings they can be compared with that at Tiruppalturai (Pl. 56) rebuilt ca. A.D. 960 (appendix 9), i.e. long after the period in which II-2-b and I-2-a vimānas were constructed. Due to the absence of a vari we are inclined to date both Śiva koyils before the renovation of the temple at Tiruppalturai which already displays this element. Their vague Rājakesari records do not contradict such an attribution.

If we consider these monuments as examples of a transitional period in which only small shrines were built, exactly as in the Kāverī delta proper, then the ekatala at Virālūr (appendix 14, no. 12) represents the end of the dvitala phase in this region. The six pilasters on its wall were still incorporated into the temple design but the dvitala construction which goes with it automatically, appeared just too much of an effort. So we suggest a date around A.D. 925 for this shrine which started this discussion in the first place (pp. 285-86).

### 5.2.2. *The "Irūkkuveḷ" temples in relation to the "Early Coḷa" Sapta Sthānas.*

We should like to make a few final comments on the architectural activities observed in the region including the area around Tañjāvūr. Accepting the existence of a workshop, it is interesting to find a production rate similar to that which we noticed a century later (p. 165). The twenty-two monuments mentioned in Fig. 42, p. 215, the five koyils at Koḍumbālūr (the Aivar koyil, the three original Muvar koyils and the Mucukundeśvara), the temples at Tirukkattai and Chittūr as well as at Alambakkam add up to thirty examples of this workshop. As a few shrines undoubtedly disappeared completely we have roughly forty koyils built in the period of about forty years between A.D. 870-910, which coincides roughly with the reign of Āditya I. We should, therefore, not be surprised to read in a record of his great-grandson, Sundara Coḷa, that Āditya I was responsible for the string of lofty temples along the banks of the Kāverī from the mountains to the sea.<sup>56</sup> Admittedly, more than a quarter of these shrines was built under the patronage of Budi Vikramakesari and as they were spread over a wide area, they are not half as impressive as the massive concentrated power radiating from the Rājarājeśvara at Tañjāvūr. All the same, though built on a more human scale, they constitute a convincing and unique proof of the workmanship of a specific group of people.

Since this skill was the result of constant training, we may safely assume that under the prevailing conditions, i.e. the continual pressure for more shrines, a kind of atelier was indispensable. This explains the great difference

in quality with regard to decorations and sculptures which can be noticed between temples constructed in the early years of this atelier (the first of the Sapta Sthanas) and those constructed later on (Tirukkandiyūr, Tiruvaiyārū, Tiruchchennampūṇḍi, Kumbakonam, Śrīnivāsanallūr, Puḷḷamaṅgai, Laḷgudi, Tirukkaḷavūr and Koḍumbālūr) and again between this last group of temples and those raised by the younger craftsmen trained meanwhile in the atelier, the II-2-b vimānas on a IA2a base upstream the Kāverī and in the Irukkuvel area.

When we combine these two training stages of the Early Coḷa artists with the three phases distinguished in Fig. 42 (p. 215), then the following scheme provides the complete — though compact — building history in the Kāverī area during the reign of Āditya I and his vassals.<sup>57)</sup>

First stage:

A.D. 870-875(phase 1)  
875-880(phase 2)

*Nārttāmalai*

*Tiruppalanam*  
*Tillaiśthānam*  
*Tiruvēdikkudi*  
*Tiruchchātturai*  
*Melattiruppūndurutti*  
*Tirukkandiyūr*  
*Tiruvaiyārū*

workshop train  
first generation  
of sthāpatis  
sculptors

Second stage:

A.D. 875-890(phase 2  
continued)

(a) + (b)

*Tiruchchennampūṇḍi*  
*Kumbakonam*  
*Tiruveṇṇambūr*  
*Śrīnivāsanallūr*  
*Puḷḷamaṅgai*  
*Laḷgudi*  
*Tirukkaḷavūr*  
*Nemam*

(a) Workshop of the  
generation of  
trained sthāpatis and sculptors  
+  
(b) new generation  
of trainees

A.D. 890-910(phase 3)

(a)

*Tiruchchendurai*  
*Kilaiyūr(A) 1)*  
*Koḍumbālūr(Mv) 2)*

(b)

*Alambakkam*  
*Allūr(2x)*  
*Aṇḍanallūr*  
*Nangavaram*  
*Koḍumbālūr(Av)*  
*Tirukkaṭṭalai*  
*Chittūr*  
*Kilaiyūr(C)*

1) Capital of the Paḷḷuvettaraiyars.

2) Capital of the Irukkuvels, temple complex consisting of three main shrines and fifteen parivārālayas.

## **2. Some considerations about the significance of the podigai**

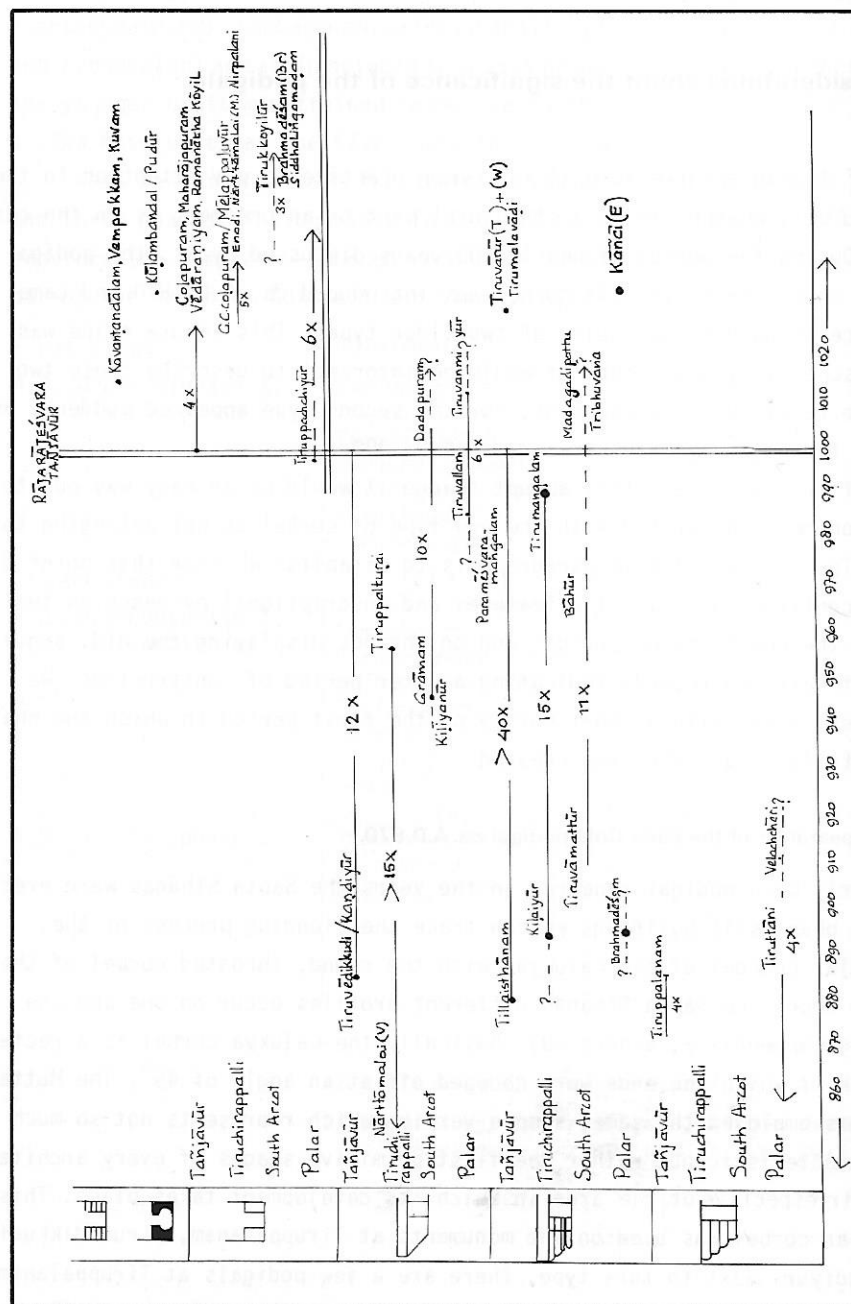
In a study of Indian architecture it is common practice to pay attention to the podigai or corbel, whether it is a structural part or an ornament as in the case of vimānas. During the period of nearly 200 years discussed by us, the podigai changed only once. The first Coḷa corbel was introduced ca. A.D. 870 and came into existence through the blending of two older types. This impure shape was transformed some 125 years later. It would be incorrect to describe these two shapes as the result of a development, for the second type appeared suddenly on the walls of the huge Rājaraḷeśvara around A.D. 990.

In an effort to explain this abrupt change it would be an easy way out to regard all monuments decorated with the new type of corbel as not belonging to our period. The purpose of this paragraph is to establish whether this point of view can be confirmed by stylistic features and inscriptional evidence on temples showing the new T-shaped podigai and on shrines displaying the old, angular corbel but carrying records indicating a later period of construction. We shall, however, start with a short survey of the first period in which the characteristic Early Coḷa corbel was created.

### **2.1 The first appearance of the Early Coḷa podigai ca. A.D. 870.**

The first Early Coḷa podigai appeared in the years the Sapta Sthānas were erected. On these phantastic buildings we can trace the blending process of the smooth, angular podigai of the Cāḷukyas with the round, throated corbel of the Pallavas, for among the Sapta Sthānas different profiles occur on one and the same building (appendix 5, aspect 19). Basically the Cāḷukya corbel is a rectangular block of which the ends were chopped off at an angle of  $45^{\circ}$ . The Muttaṛaiyar shrines employed the same, simple version which represents not so much a regional characteristic but rather the first primitive stages of every architectural style irrespective of the area in which its development takes place. This plain, angular corbel was used on the monuments at Tiruppalanam, Tiruvēdikkudi and Tirukkaṇḍiyūr. Next to this type, there are a few podigais at Tiruppalanam which are merely a bundle of ribs and resemble the Pallava corbel, though they already have an angular profile and a small vertical fascia. A more refined vers-





tion is the throated podigai consisting of equally wide ribs held together by a taraṅga or median band, a type tried out again at Tiruppalanam, Tillaisthānam, Tiruvēdikkudi, Tiruchchātturai and Tiruvaiyārū (Pls. 23-24, 27b). This intermediate form developed into the third and last type — the throated podigai with median band and a deep groove at the bottom which was applied without exception on the shrine at Melatiruppūndurutti (Pl. 29b). However, this final form of the Early Coḷa podigai did not appear out of the blue, for some of the corbels on the monuments at Tillaisthānam and Tiruvēdikkudi have an incision at the same place.

After the Sapta Sthānas came into being, the sculptors could choose from the various forms invented by the architects of these temples. Fig. 57 shows that this indeed happened. Both the angular and the throated podigai occurred side by side. It is equally clear, though, that the throated corbel was quite popular in the delta.

Two remarks should be made here. Firstly, we do not notice a similar quest for an acceptable corbel in the shrines located west of the Grand Anicut (appendix 14). They have either the angular corbel or its throated version. Had these temples been older than the Sapta Sthānas, then the architects of the latter would never have had to cut and saw bits and pieces out of the corbel-blocks in order to create a form which existed hardly fifty miles further west on the borders of their old homelands. So in this respect also the sthāpatīs of the Sapta Sthānas appear to have been pathfinders. Secondly, the corbels of the koyils at Tiruttāni and Veḷachchēri, both in the Palar region, are partly designed according to the Pallava idiom showing ribs without grooves. However, the small vertical fascia above these ribs deprives them of their Pallava character, since the Pallava corbel has ribs running up against the uttira. In this respect these shrines are transitional and should be attributed to the turn of the century.

It must be pointed out here that the small vertical fascia immediately above the curved or ribbed profile of a corbel is not an invention of the Early Coḷas, for it appears already on the Bhoganandīśvara at Nandi, a temple supposed to have been built by Bāṇa architects in the very beginning of the 9th century.<sup>58)</sup> This small detail somehow greatly attracted the early South Indian sthāpatīs, for it was applied not only in the Bāṇa country and in the Palar area at Veḷachchēri and Tiruttāni, but also in the Western Gaṅga tracts, for instance, at Kambedahalli, and far to the north in the land of the Eastern Cāḷukyas, for instance, at Biccavolu.<sup>59)</sup> However, the combination of an angular profile in which ribs (Veḷachchēri) and a groove (the Sapta Sthānas) were carved out, does not occur in the other buildings just mentioned.

## 7.2. The transformation of the shape of the Coḷa podigai ca. A.D. 990.

As we already saw, the architects of the Rājarājeśvara introduced the T-shaped podigai. This T comes about by not chopping off part of the median band at an angle of  $45^{\circ}$ , as a result of which the rectangularity of the original corbel-block is partly maintained.

We shall now have to ascertain whether the Rājarājeśvara is indeed a stylistic landmark indicating a new period, not only in the delta, but throughout the Coḷa country. Let us first review the situation in the delta.

### 7.2.1. *The introduction of the T-shaped podigai in the Kāverī delta and its significance for dating temples.*

In the previous chapter we arrived at the conclusion that the construction of the Rājarājeśvara absorbed most of the available craftsmen with the result that only in a few cases of emergency temples were renovated or newly erected. The almost complete absence in the delta of shrines constructed during the long reign of Rājendra I, seems to confirm this view. According to Balasubrahmanyan only three koyils were taken in hand, viz. a paḷḷipadai to inter the mortal remains of a queen at Ramanātha Kōyil, originally called the Panchavan Mahādevī Īśvaram (A.D. 1019) and two shrines which were renovated, one at Tirumaleśvaram, rebuilt between A.D. 1013-1026 and the other, the Tyāgarājeśvara at Tiruvārūr, reconstructed ca. A.D. 1030.<sup>60)</sup>

In addition to these three monuments we may draw attention to the Maṅgaṇātha in the compound of the Tyāgarājeśvara, and four village shrines at Vēdāranyāy Coḷapuram and Mahārājapuram as well as the Amman koyil in the compound of the Sundareśvara at Mēlappaḷuvūr (appendix 11, nos. 29-32, 34-37).<sup>61)</sup>

In order to receive an impression of the essential, stylistic differences between monuments raised during the reign of Rājarāja I and the koyils just mentioned, which were designed by architects working in the meantime on the large temple complex at Gaṅgaikoṇḍaḷapuram, we have listed the details of all these koyils in Fig. 58, including those of the Amman shrine at Gaṅgaikoṇḍaḷapuram. We also entered the shrines at Puñjai and Tiruveṅkāḍū, because they are considered to be the last vimānas built during the reign of Rājarāja I (Figs. 52, 54 pp. 252-62).

From Fig. 58 some conclusions can be drawn. First of all it is evident that the shrine at Puñjai should not have been included for it is the only occurrence of an A component in the base. The rounded kumuda (B) is part of the adithāna of all other monuments. Secondly, it appears that the temples with a

Fig. 58. Characteristics of temples along the Kāverī and in the delta built between A.D. 1000-1044.

Name of village	characteristics <sup>1)</sup>									
	layout	base	vari	upāna	kāṭ	podigai	bhūtagaṇas	kapota	kumbhapañjara	nāṭya-pens
Paṇjai)	I-1-a/1-B-1	IA2a	+	-	OMS	Th	+	-	-	-
Tiruveṅkāḍū)	I-2-a/1-A-0	IIB1	-	-	S	Th	+	-	-	-
Mēlappaḷuvūr	I-2-a/1-A-1	IB2a	-	L	S	T/Th	● <sup>2)</sup>	-	-	-
Sundaranyam (Fig.59c)	I-1-a/0-A-0	IB1	+	L	S	T	+	-	-	+
Ramanātha Kōyil	I-1-a/1-B-3	IB1	+	L	OR	T	●	-	+	-
Mahārājapuram	I-2-a/1-B-3	IB1	+	?	OS	T	+	-	+	+
Paḷapuram (Pl.79)	II-4-b/1-B-1	IIB1	+	H	O	T	●	-	+	-
Raman shrine GGC <sup>3)</sup>	II-4-b/3-B-3	IB1	+	H	S	T	+	+	+	-
Tiruvārūr (Wan)	I-1-a/1-A-0	IIB1	+	-	O	A	+	-	-	-
Tiruvārūr (Ty)	?-5-c/1-A-1	IIB2a	+	-	RMS	Th	+	-	-	+
Trimalavāḍi	II-2-b/1-A-3	IIB2a	+	-	O	Th	+	-	-	-

• = present

- = absent

H = high upāna

L = lotus upāna

O = octagonal

Th = throated

T = T-shaped

M = polygonal

R = round

● = bhūtagaṇa frieze replaced by a border of lotus petals.

● = the kapota above the niche in addition to the usual makaratoranas; the plain jagatī is slightly curved but without lotus petal decoration as in Cāḷukya temples.

T-shaped podigai combine this feature with a high or lotus upāna and with the characteristic vyāli frieze above the rounded kumuda. Of course, the Wanyaga-  
mētha at Tiruvārūr does not stand on a lotus upāna, since its huge lotus jagatī  
is selfsufficient and the lower part of the koyil at Mahārājapuram cannot be  
studied as it is hidden by a thick layer of clay.

In the third place, we see that the Tyāgarājesvara at Tiruvārūr, renovated  
A.D. 1030<sup>62)</sup>, displays the throated podigai, whereas the paḷlipaḍai at Rama-  
mētha Kōyil dated A.D. 1019 is decorated with the T-shaped corbel. This seems to  
indicate that there was no abrupt switch from one form to another, at least not  
in the villages where the memory of older shrines still lingered on. This point  
can be further illustrated by the only other koyil situated in the compound of the  
Sundaresvara at Mēlappaḷuvūr. We know that a Paḷluveṭṭaraiyar chieftain commis-  
sioned a temple at this place in the days of Rājarāja I (appendix 11, no. 37), which

was undoubtedly the koyil just mentioned. Here we see three types of podigais, viz. the new T-shaped corbel, the throated podigai and the type in which vertical lines are carved out. The presence of the older, main shrine apparently prevented the spontaneous acceptance of the new type of corbel. The same applies to the Tyāgarājeśvara and the Wanyaganātha at Tiruvārūr, both situated in the same compound as the last Śembyan Mahādevī monument, viz. the Acaleśvara, which displays the throated podigais and the curious ground-plan (III)-5-c. The sculptors of the Tyāgarājeśvara copied not only the throated podigai of the last building but also its unusual layout. Since the Tyāgarājeśvara is the main shrine in the compound, whereas the Wanyaganātha is only a subsidiary koyil—though situated within the same prakāra—we believe that around A.D. 1030, the old, probably tiny, brick, main shrine was replaced by the far more impressive vimāna of type (?)—5-c, while the Wanyaganātha received the features of the preceding main koyil. This would not only explain its IIB1 type of base and its 1-A-0 layout, but also its angular podigai.

The third renovated monument with an old-fashioned podigai is located at Tirumalavāḍi. It was pulled down in A.D. 1013 at the orders of Rājārāja I and its old records were re-engraved in A.D. 1026 (appendix 11, no. 34). Its sculptors made a selection of known types and features prevailing in the delta since the time of Āditya I, for it has a II-2-b vimāna and a IIB2a base, typical of Śembyan Mahādevī's style, but displays the octagonal kāl characteristic of 11th century architecture in combination with a 10th century, throated, podigai (cf. Fig. 54).

From the above discussion it is clear that the throated corbel was continually applied in the Kāverī delta when a new koyil was erected on an old shrine. This obvious attachment to a traditional shape is also demonstrated in other architectural details. However, whenever a temple was constructed at a new site—indicated by the complete absence of inscriptions dating from before A.D. 1000—the T-shaped podigai in combination with the vyāli frieze appears to have been a standard element. From Fig. 58, we also learn that there is a tendency to replace the charming row of bhūtagaṇas by a rather dull border of lotus petals. The lotus pota as alternative of the makaratorāṇa was tried out on the walls of the main shrine in the Gaṅgaikoṇḍaḥṇaśvara at the capital of Rājendra I (Fig. 59a). The three-dimensional kumbhapañjara was applied rather frequently. On the other hand we do not notice any structural changes in the layout of the garbhagṛha and ardhamaṇḍapa.

The above observation with regard to the introduction of kumbhapañjara can be added to the features which in our opinion are characteristic of the period between A.D. 870-1044. All these elements are tabulated in Fig. 60 (p. 304).



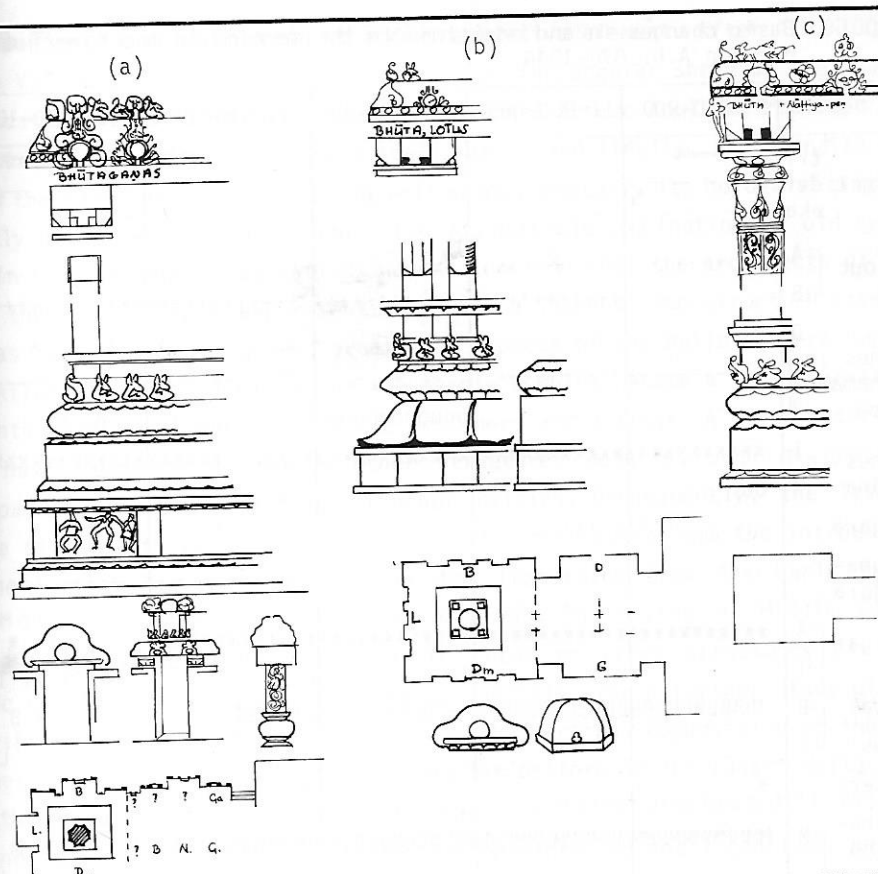


Fig. 59. Three examples of the Middle Coḷa style of temple architecture:

- a) the Amman shrine in the compound of the Gaṅgaikoṇḍacoḷeśvara, Gaṅgaikoṇḍacoḷapuram;
- b) Gaṅgaikoṇḍacoḷeśvara, Kūḷambandal;
- c) Vēdāraṇyeśvara, Vēdāraṇyam.

In addition to changes in decorative details such as the kumbhapañjaras and maratoranas (Fig. 59a), we should like to draw attention to the drastic alteration of the profile of the kapota and the drifting position of the kūdu. The border of circles is now placed higher up on the kapota and a vertical fascia is added underneath. This type of profile became common not only in the delta but also in the Palar area (Fig. 59b) and the Tinnelveli District (appendix 16, fig. b). In the delta two types occur simultaneously in the 11th century (Figs. 59a and c). The kūdu seems to have completed its transformation from a horseshoe-shaped ornament into a circle (Fig. 59b), although it should be remembered that this type of kūdu existed already on the kapota of the base and the prastara at Kuttalam dating from A.D. 986 (p. 193, note 68; Fig. 41c, p. 211).

Fig. 60. Basic changes in and additions to the temples in the Kāverī delta between A.D. 870-1044.

[illegible]

1) raised on local initiative. 2) built by wealthy citizens.

S = straight profile; 0 = ogeed or bell-shaped; - = applied once;  
- - - = applied incidentally; --- = applied throughout.

Reading the columns vertically each phase is distinguished by a characteristic sequence of heights. The basic difference between phases I and II is the introduction of the false antarāla (+). The appearance of the pañjara is the difference between these two first steps in the development of the Early Coḷa style. The differences between phase II and III are the addition of niches in the walls of the ardhamandapa and the disappearance of the pañjaras. In phase IV we notice that the architect had a freedom of choice with regard to the layout, the number of niches in the vimāna and the application of pañjaras on the walls of either the vimāna or the ardhamandapa. At the same time the three-dimensional

kumbhapañjaras were introduced as a new decorative element. After A.D. 1000 (phase V) some ornamental changes occur, viz. the angular shape of the podigai was occasionally altered into a T, the bhūtagaṇa frieze could be replaced by a padmabandha, the makaratoraṇa by a small kapota and finally, the roundish profile of the main kapota could become bell-shaped and carry its border of circles slightly higher up while the layouts show all possible combinations of old types.

In view of these observations we can conclude that the architects of the first three phases were experimenting with the shape of the structure itself, whereas in the last two phases ornamental aspects of the building were emphasized. After A.D. 1000 the heart of the temple complex became a less important element in the minds and hands of the designers and artists. A re-orientation must have taken place towards other structured details, such as gopuras, maṇḍapas and shrines dedicated to minor deities. Consequently, the last decade of the 10th century in which the only contribution was the introduction of the kumbhapañjara, seems to mark the transition from the Early to the Middle Coḷa period. This implies that any discussion of Middle Coḷa temples at village level will have to focus on other structures of the temple complex including their ornamental details, for a further study of the distribution-patterns of the layouts and the vertical composition of the main shrines will merely demonstrate an irregular pattern in the Kāverī delta. Whether this is also the case in the Palar region is another problem but it certainly does not apply to the two Coḷa pyramids. Therefore, we shall conclude our study with a review of 11th century architecture in the old Pallava domain followed by a discussion of the Rājaraṣeśvara and the Gaṅgaikoṇḍacoḷeśvara.

### 7.2.2. *The Palar region*

In the discussion of the vari, the upāna and the kāl, it became evident that in the Palar region monuments with T-shaped podigais are characterized by more than this new ornament. (pp. 228-233, pp. 236-243). Apart from the podigai, the innovations in the Kāverī delta were restricted to the bhūtagaṇa frieze and the decoration above the niches. The monuments in the Palar area show more variations. First of all, it is remarkable that the T-shaped podigai was not accepted as entirely satisfactory and was changed into a kind of a drop (Fig. 57, p. 300). A second, major alteration concerns the profile of the kapota (Fig. 59b, p. 305). The vertical fascia under the border of circles became a permanent feature in contrast to the Kāverī delta where it was applied only occasionally. In the third place, karakutīs appear on the grīvā platform, a conception as old as the Rathas at Māmallapuram. A fourth obvious deviation from the Coḷa idiom is the preference for

Fig. 61. Tentative clustering of monuments in the Palar area built during the 9th-11th centuries, according to their "Palar" and/or Coḷa characteristics.

Palar idiom ca. 850-1044 - layout -1-/1-A-1 - pilaster (decoration) square - base IA2a - (makaratoraṇa)	Coḷa idiom ca. 950-1044 ? - layout (+pañjaras) -2- - pilasters ORSM - base I (I)B of IA	
Kāñcī (Sok) Mēlpādi (Coḷ) Tiruvallam	Kāñcī (Ek) Tiruvadandai Tirumaliśai Melpadi (Som) Vim. ← Paramēśvaramaṅalam → Ardh. ↑ S ↓ S	- śikhara (circular) - podiḡai T.A.Thr.
Vempakkam <sup>2)</sup>	Kūḷambandal Pudūr Kuvam Tiruvorīyūr Tirupachchiyūr Tirumḷaiavāyil ↓ ↓ ↓ ↓ ↓ P P S S S	- śikhara (E) - podiḡai (trib)
Tiruvanmiyūr Tiruttāni Veḷachchēri Brāhmadēśam Takkōlam <sup>3)</sup>		- podiḡai - foot board vari.

- 1) Due to its central protruding bay this koyil is related to the Coḷa idiom.
- 2) The modern, round, brick śikhara of this temple does not necessarily indicate the original shape of its roof.
- 3) This temple shares its details with all others mentioned in this cell, except for its IB1 base, which might indicate its Bāṇa origin.

the apsidal shape, be it applied to the entire building or merely to the super-structure. A fifth remarkable phenomenon is the appearance of a kind of canopy above the image of Dakṣiṇāmūrti (p. 238), and finally, the frieze of bhūtagaṇas is occasionally substituted by a border of lotus petals at one or more places under the uttira. All these features as well as the monuments on which they occur, are listed in Fig. 61.

These deviations from the Early Coḷa style—which prevailed in the delta till far into the 11th century (cf. the Tyāgarājeśvara at Tiruvārūr, dated A.D. 1030)—do not occur in equal measure in the Palar monuments discovered so far. These shrines can be divided into four groups, viz. the koyils at Kāvaṇṇandālam and Vempakkam as well as the Sokkeśvara at Kāñcī, which resemble each other in certain respects; the monuments at Kūḷambandal and Pudūr which could almost be called twins, the tritala at Kuvam which should be included in the group of tritalas already discussed in the context of the upāna (pp. 236-43), and finally, the Viṣṇu Perumals at Tirumaḷiśai and Tiruvadandai which are stripped of any sign of individuality of their own, and which we would rather consider as standardized models built in strict accordance with the fixed rules laid down in the śāstras.

In order to emphasize the character of each cluster, we shall now discuss these four groups of monuments one by one.

*The koyils at Kāvaṇṇandālam, Vempakkam and Kāñcī, (Pls. 99a-b; 98; 71a-b and 100; (the Sokkeśvara) appendix 15, nos. 20-21 and 24).*

The Coḷeśvara at Kāvaṇṇandālam can be attributed to ca. A.D. 1016 on the basis of an inscription on the Viṣṇu temple in the same village. No reliable inscrip-tional evidence is available with regard to the other two shrines. The Śiva temple at Vempakkam is, unfortunately, a ruin and moreover, almost permanently submerged in the centre of the Poinee lake, an irrigation reservoir. The Sokkeśvara was reconstructed about ten years ago. Nevertheless, both monuments have retained many of their remarkable and intriguing features.

*The podigai.*

The Sokkeśvara has a straight forward, T-shaped podigai. At Kāvaṇṇandālam and Vempakkam the slanting part on either side of the T is ribbed and occasionally the T is transformed into some kind of hook as at Kāvaṇṇandālam (Pls. 71a, 98 and 99a).

*The prastara.*

With regard to this complex element the three temples resemble each other, for



the profile of the kapota is bell-shaped and adorned with excessively large kūdus cutting across the border of circles and the vertical fascia. Most of the kūdus are literally decapitated. The circles in the kūdus of the Sokkeśvara depict scenes of liṅga worship framed by a leaf-like ornamentation fluttering up; at Vempakkam the kūdu consists of large scrolls surrounding a human head (Pl. 98); at Kāvaṇṇandālam the kūdu is only superficially carved. Turning our attention to the vyāli frieze, we notice experiments with the "vyālis" on the corners which are in fact makaras. At Kāvaṇṇandālam they still belong to the type common in the 10th century, viz. a fearsome head with eyes, ears, a curled-up trunk and a wide open mouth displaying a warrior with a sword; at Vempakkam this aggressive animal has turned into a smooth form reminding us of water lily tops, decorated with rope-like ornamentation; at Kāñcī(S) the makaras have been reduced into a streamlined projection (Pl. 71a-b).

#### *The makaratoraṇa.*

At Vempakkam the makaratoraṇa still resembles those of the Coḷas (appendix 15); at Kāvaṇṇandālam we find loose scroll-work framing deities which stand on a base of protruding pedestal (Pl. 99a); at Kāñcī(S) the basic ingredients of the makaratoraṇa are present, but they are remodelled in such a way that the ornament looks more like the frame of a picture (Pl. 100). Apart from these strange makaratoraṇas on the walls of the ardhamandapa, we are also confronted with a kapota carved by an ordinary makaratoraṇa on the walls of the vimāna (Pl. 71a).

#### *The kāl.*

All three monuments share the exaggerated lotus petals under their palagana. In other respects the kāls vary considerably. At Kāvaṇṇandālam there are superpanels instead of the normal mālāsthānas and the fine quality of the decoration of the kalaśa and the kumbha can best be compared with that at Tirumullaivāṇi (Pls. 74 and 99b). The panel decoration at Vempakkam is of a coarser quality, but the kāls are attractive and remind us of those of the simple, carved panels at Tiruvallam (Fig. 47b, p. 229; appendix 15, no. 16). The pilasters at Kāñcī(S), on the other hand, are rather awkwardly decorated with a rudimentary mālāsthāna (Pls. 99b-100), and resemble those at Mēlpādi (Fig. 47a, p. 229).

#### *The superstructure.*

Unfortunately, the original śikhara of the shrine in the Poinee lake has disappeared. At present, the badly damaged roof is a circular, brick construction. The Sokkeśvara at Kāñcī has a granite dome of enormous size, due to the presence of the two extra pilasters of the first tala inherent to an I-1-b layout.

This dome is surrounded by tiny *karṇakuṭīs*. At *Kāvaṇṇandālam* the apsidal *śikhara* without additional *kuṭīs* was selected. The two superstructures differ not only in their shape — the Pallava apsis and the Coḷa dome — but also in the *grīvā* niches, for the old design, including a lintel, was applied at *Kāñcī* (S). At *Kāvaṇṇandālam*, on the other hand, the *kūdus* rest on the *uttira* which is decorated with a border of lotus petals and which, moreover, runs on under the *kūdus*. In this construction the lintel above the *podigais* carrying the *kūdus* is superfluous and was, consequently not incorporated into the total design of the *grīvā* niche.

*The vertical and horizontal layout.*

In these two respects the three monuments also deviate clearly from the current Coḷa style, for they belong either to the impure I-2-b type (*Kāvaṇṇandālam*) or to the I-1-b category of *vimānas* (*Kāñcī*, *Vempakkam*). Their 1-A-1 layout, used by the Coḷas, could well be a combination which developed independently and simultaneously in the *Coḷamaṇḍalam* and in the *Toṇḍaimaṇḍalam* (p. 230, cf. *Brahmaśaṣam*, appendix 15, no. 11). All three temples stand on a simple IA2a base — a type which was known from the days of the Pallavas. In fact, the only four indisputably Coḷa features of these shrines are the *vari* interrupted by niches, the lotus *upāna*, the small sculptures on either side of an image at *Kāñcī* and *Kāvaṇṇandālam*, and the round *śikhara* at *Kāñcī*.

When we compare these three buildings with those at *Kūḷambandal* and *Pudūr*, it is obvious that the last two cannot be closely associated with the (Early) Coḷa style either, though they do share the most important structural aspects with it.

*The koyils at Kūḷambandal and Pudūr* (Pls. 20a-b, 101; appendix 15, nos. 23 and 29) The huge *Gaṅgaikoṇḍacoḷeśvara* at *Kūḷambandal* is a free-standing and perfect example of the Middle Coḷa period, for the Early Coḷa -B- layout is extended with an *antarāla* and a *mukhamaṇḍapa*. The much smaller *koyil* at *Pudūr* shows the same additions, though its *mukhamaṇḍapa* has completely collapsed.

The *Gaṅgaikoṇḍacoḷeśvara* was commissioned — as its name indicates — during the reign of *Rājendra I* by a priest who is believed to have belonged to a famous *Taṅjāvūr* caste, a fact which could explain its close structural affinity with the delta idiom.

In contrast to the former three shrines, the two monuments at *Kūḷambandal* and *Pudūr* do not distinguish themselves by their decorative details, for in this respect both buildings were left practically unadorned. However, some structural features are sufficiently interesting to deserve our attention.

*The superstructure.*

In both instances the śikharas are bulbous and surrounded by karṇakuṭīs. The kūḍus above the grīvā niches stand on a kapota which, in our opinion, is a novelty, not only in this part of the country but also further south. Moreover, at Kūḷambandal the kuṭīs, śālas and the connecting walls of the hāra, all display kapotas in line with each other, thus creating the impression of a second uninterrupted kapota not far above the main kapota of the first tala. This concept seems a new contribution to Coḷa architecture, for it was neither applied in earlier buildings, nor in the Rājarājeśvara at Tañjāvūr, nor in the huge monument at Gaṅgaikoṇḍaḷapuram (Pl. 20a).<sup>63</sup>

This second kapota results from the fact that the kuṭīs and śālas as well as the wall connecting these aedicules are double storeyed, for the small śikharas of all these elements do not rest immediately on their walls, but are slightly elevated by means of a grīvā which in its turn stands on the remarkable second kapota. However, this type of hāra is not really a novelty, for many large Pallava monuments at Kāñcī, Māmāllapuram and Uttaramallūr show the same peculiarity. This does not imply that the Pallavas knew only the hāra with a double kapota, for in each second and following hāra of their large buildings as well as in the first hāra of the Mukunda Nayanar at Māmāllapuram (Pl. 37) the kapota is absent as in the Coḷa vimānas.

*The vertical and horizontal layout.*

Apart from the canopy above the image of Dakṣiṇāmūrti, the two buildings demonstrate a well-balanced, vertical composition — an aspect which was, so far, typical of the Early Coḷa style. At Pudūr, the I-2-b vimāna gives, at first glance, the impression of being out of balance due to an extra pair of pilasters on either side of the protruding central bay. However, the tiny karṇakuṭīs on the grīvā platform eliminate this impression, since they appear to be the extension of these two pairs of kālīs on either side of the protruding central bay (Pl. 20). At Kūḷambandal the 3-B-1 layout might be considered an anomalous and unique design, but in view of the fact that the remains of the original mukhamāṇḍapa clearly reveal the former presence of four niches in its walls, we can safely assume that the image-bearing function of the ardhamāṇḍapa was transferred to the mukhamāṇḍapa, in contrast to, for instance the situation at Gaṅgaikoṇḍaḷapuram, where the walls of the mukhamāṇḍapa are plain and those of the ardhamāṇḍapa are lavishly decorated with images (Pl. 19b). The presence of these niches in the ardhamāṇḍapa walls at Kūḷambandal may seem superfluous, but can be explained by the fact that this had become the standard place of the images of

Durgā and Gaṇeśa, a symbolic position which, apparently, could not be changed.

*The podigais and the prastara.*

The podigais on both shrines differ in a daring way from the newly introduced T-shape at Tañjāvūr. They are almost independent elements carved into a kind of pinnacle, only vaguely reminiscent of the stark T. The prastaras are of the by now common, bell-shaped type. However, the kūdus are closed and placed half-way up the kapota above the border of circles (Pls. 20b and 19a). The makaras on the corners are once again "realistic", mythological animals, though all kinds of human beings, single and in pairs, performing all sorts of activities emerge from their mouths. Bhūtagaṇas and lotus petals are present under the vimāna-cum-ardhamāṇḍapa and the mukhamāṇḍapa respectively. The shrine at Kūḷambandal demonstrates its regional character not only by its podigais and its superstructure, for the small sculptures on either side of the Dakṣiṇāmūrti niche are also incorporated into the walls in an unfamiliar way. Here, the figures of ṛṣis are not part of the blocks in which the base of a kāl was carved — as in Early Coḷa temples — but are depicted on loose blocks added to the finished walls later on. The holes on either side of the Dakṣiṇāmūrti niche were apparently meant for the tenons of these images no longer present (Pl. 20a).

In view of all this we venture to state that the monuments at Kūḷambandal and Pudūr represent a style different from that of the temples at Kāvaṇṭandālam, Vempakkam and Kāñcī(S), and that they must somehow be associated with the sthāpatis working in the Kāverī delta — a point of view which seems to be underlined by the presence of the IIB1 base at Kūḷambandal, which was, after all, the most characteristic of all Coḷa features. Since Rājendra I is known to have resided in Kāñcī<sup>64</sup> and died at Brahmadēśam — of which Pudūr was a part — it is quite likely that some sthāpatis from Tañjāvūr or Gaṅgaikoṇḍaḷapuram were active in these parts of the vast Coḷa empire.

*The tritalas at Kuvam, Tiruvoṛriyūr, Tiruppachchiyūr and Tirumullaivāyil (appendix 15, nos. 22, 27, 30, 31).*

We discussed the tritalas at Tiruvoṛriyūr, Tiruppachchiyūr and Tirumullaivāyil at great length when dealing with the upāna (pp. 236-243). One of the main problems faced by their sthāpatis was how to divide the elongated walls in a satisfactory way, a problem restricted to apsidal and rectangular vimānas. In the elephant's backs at Tiruvoṛriyūr and Tirumullaivāyil, the solution was found by adding a unique type of pañjara; at Kuvam and Tiruppachchiyūr, both rectangular vimānas, blind niches adorned with makaratorāṇas were designed (Fig. 48,



p. 237). At Kuvam two pilasters carrying a kapota were added on either side of the central niche. In its turn this kapota was decorated with kūḍus and vyāḍas and gives the impression of being connected to an otherwise completely independent kūḍu on the main kapota by means of two slender ribbons cutting perpendicularly across the uttira. This uttira displays rosettes at short, regular distances and carries a lively row of bhūtagaṇas which is interrupted only by the ribbons cutting through the uttira. At that place a few lotus petals were carved instead. The makaratorāṇas above the niches show the well-known, double-curved profile of the Early Coḷa style (appendix 6), but within these contours the concept of the makaratorāṇa is entirely lost. For, relatively large figures fill the space, as for instance above the Liṅgodbhava image where a reclining Viṣṇu is depicted in full length. The podigais do not show experiments, for they are simply plain, T-shaped.

In spite of the fact that the earliest dated record at Kuvam mentions the year A.D. 1057, we attribute this monument to the early days of the 11th century, the period in which the other tritalas were erected. None of these buildings provides epigraphical evidence for their dates but their style points to a close relation between their sthāpatis and is indicated by the experiments in the apsidal and rectangular layout as well as the absence of experiments in the shape of their podigais (cf. Fig. 61, p. 308).

*The Viṣṇu Koyils at Tiruvadandai and Tirumaḷiśai* (appendix 15, nos. 26, 28). Anybody able to interpret appendix 15, can produce an exact copy of these two Viṣṇu shrines. In our opinion this indicates that they were built in strict accordance with the rules of the śāstras without any additional embellishments. Since the Viṣṇu Perumal at Tirumaḷiśai carries inscriptions which date at the earliest from the 13th century but, nevertheless, displays the contours of the Coḷa makaratorāṇa, the T-shaped corbel and the perfect II-2-b/1-A-1 layout in combination with an attached mukhamāṇḍapa, we are inclined to consider the other Viṣṇu Perumal at Tiruvadandai also as a product of some undefined period in which temples were erected according to the śāstras. This period had definitely not yet started when the tritalas and the monuments at Kāvanṇāḍālan, Pakkam, Kāñcī (S), Kūḷambandal and Puḍūr were built (cf. pp. 241-42).

In this connection a final remark should be made with regard to the Tachchimaṇḍala shrine in the compound of the Ekambaranātha at Kāñcī (appendix no. 25), which we mentioned when dealing with the upāna (p. 242). Due to the extra moulding this temple must have been built during the period in which the high upāna became popular in the delta, i.e. after A.D. 990-1000. This implies



that its podigai must have been carved into a T, for this was the practice of the sculptors working in the Palar area during those days (cf. Fig. 57, p. 300). Unfortunately, the corbels of this large subshrine do not belong to this new type. On the contrary, they display the angular and throated versions decorated with a median band. To complicate matters even more, the architects designed not only kapotas with straight profiles and kūdus cutting right across the border of circles, but also vimāna walls according to the ORM formula adding lotus buds to the square bases of the polygonal kāls on the corners. As such this 1-A-1 temple reminds us of another 1-A-1 building constructed at Goburapatti in the Kāverī area around A.D. 990-1000. This shrine also stands on a high upāna and shows variation in its kāl profiles (Pl. 49). The peculiar lotus buds decorating the delicately carved pilasters of the Tirucachchimayana remind us of the Śēmbyan Mahādevī koyil at Vriddhāchalam (Fig. 41b, p. 211). The padmabandha under the upāna is a repetition of a similar border under the jagatī. The Tirucachchimayana shares this new combination of plinth mouldings with the temple at Tirukkoyilūr (appendix 13, no. 24) rebuilt around A.D. 1058 and with that at Tiruvadanai which we attributed to the end of the 11th century at the earliest (p. 242).

In view of the fact that the Tirucachchimayana is a subshrine in front of the main temple, it cannot have been constructed prior to the reign of Rājendra as subshrines of this size previously unknown. Consequently, we have to conclude that the Tirucachchimayana is another example of the assumed practice to erect buildings in strict accordance with the descriptions in the śāstras. However, in this case qualified sculptors were commissioned to embellish it according to the taste of the Early Coḷas. We would not be surprised if this order was issued by Kulottuṅga I or III, for in those days the sculptors were once again highly trained as is obvious from the carvings on the large wall surfaces of the immense buildings at Dārāśūram and Tribhuvanam (cf. Pls. 102a-e).

We are well aware of the fact that we are not in a position to draw final conclusions with regard to the precise dates of the monuments just discussed. However, according to us, they may belong to roughly the first three decades of the 11th century, for at that time there were apparently two styles in the making in the Palar area. The first is represented by the monument at Kāvaṇṇandālam, displaying features which should probably be associated with the Bāṇa style, east of the Palar area. The second, represented by the shrine at Kūḷambandal, seems to be a continuation of the Early Coḷa style. Much later, temples were constructed in which the unique, regional style was eliminated in favour of a set of rules reflecting almost completely the basic Early Coḷa elements.

Consequently, the dates mentioned in Fig. 61 should be taken merely as provisional suggestions. When more monuments in this area as well as in the neighbouring districts to the north and west will become known, it may one day be possible to check the validity of our arguments as expressed in these dates.

### 7.3 Comments upon the podigai as indicator of a style.

From our discussion in the previous paragraphs it may have become clear that the shape of the podigai cannot be used as criterion for the dating of temples. Everything depends on the location of the monument on which the podigai occurs. For, in the Palar region the T-shaped corbel is part of almost all koyils built during the first half of the 11th century, whereas in the Kāverī area shrines decorated with the throated podigai do not necessarily belong to the 9th or 10th century. Some of them are later in date.

Another problem is whether or not changes in the shape of a podigai are part of a general transition from one style to another. In this connection a distinction should be made once more between 11th century architecture in the Palar region and that of the Kāverī area. For, in the north some remarkable innovations are noticeable, whereas in the Kāverī area the alterations are not impressive — at least not in the ordinary ekatalas and dvitalas (cf. Fig. 58, p. 20).

The next question is whether the Rājarājeśvara at Tañjāvūr where the T-shaped podigai was first tried out successfully, reveals basic changes in some parts of the building as well. From our study of the Sapta Sthānas it appears that the sthāpatis of this group of koyils carried out experiments not only with regard to the shape of the corbel but actually with regard to almost all other aspects also. In view of the discrepancies in the demarcation of the Early Coḷa period we must conclude that the T-shaped podigai is indeed a doubtful criterion and that it is also difficult to attribute other features to either the Early or the Middle Coḷa style. In this connection two further questions can be formulated:

- is the Rājarājeśvara with its T-shaped podigai a product of the school of the bryan Mahādevī and, consequently, has it to be separated from its counter-part at Gaṅgaikoṇḍacoḷapuram or
- are the two imperial buildings both representatives of a new phase in Coḷa architecture — a phase which, as we saw earlier on, contained a restricted number of rather small koyils, each characterized by a unique combination of the ground-plan of its vimāna and its ardhamandapa.

The first possibility was suggested by Barrett and Soundara Rajan (pp. 59 and 62, note 68). The alternative is represented by the views of Sastri and Balasubrahmanyam (p. 59). As we shall see further on the first suggestion cannot be substantiated, for comparison of the two monuments in question shows that — as in the case of the earlier workshops — the sthāpatīs at Gaṅgaikoṇḍaḥapūram systematically tried to avoid duplication of the structural and ornamental details of the Rājaraḁeśvara at Taṇjāvūr. Moreover, these vast masses of piled up granite blocks clearly demonstrate that in many respects the idiomatic rules as laid down by the architects of the previous two ateliers, were carefully applied. So, on stylistic grounds it is incorrect to separate these monuments from each other.

In our opinion we are dealing with a dual development. At the village level, in and outside the Coḁamaṇḁalam shrines were built which differed from the Early Coḁa monuments in minor decorative innovations and re-arrangements of Early Coḁa structural designs (pp. 307-08). At Taṇjāvūr and Gaṅgaikoṇḍaḥapūram structural experiments were continued during the first half of the 11th century as we shall now illustrate.<sup>65)</sup>

We start with the layout of the two vimānas which belong to the sāṇdhāra class. Their central bays project — at Taṇjāvūr as part of a -4- ground-plan, while at Gaṅgaikoṇḍaḥapūram the -3- variant was selected (Fig. 62).

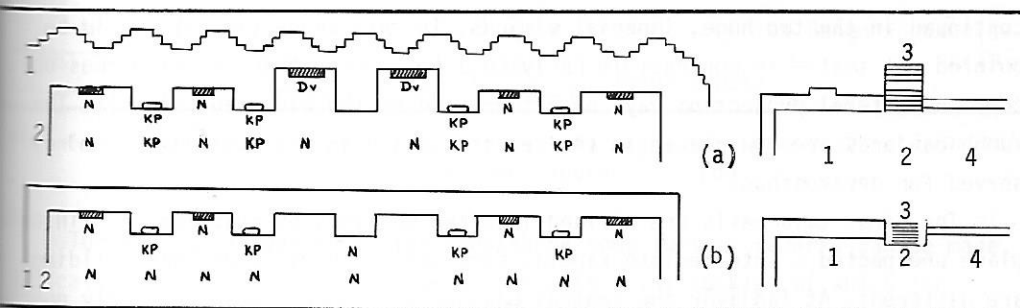


Fig. 62. Ground-plans of the upāna and vimāna at  
a) Taṇjāvūr  
b) Gaṅgaikoṇḍaḥapūram  
1. upāna 2. vimāna.  
N=niche; KP=kumbhapaṇjara; Dv=dvārapāla.

Fig. 63. General layout of the buildings at a) Taṇjāvūr and b) Gaṅgaikoṇḍaḥapūram. 1. vimāna; 2. antarāla; 3. staircase; 4. mukhamāṇḁapa.

According to us these differences in ground-plan in combination with the characteristically Early Coḁa, projecting, central bay, were created intentionally. For, the theoretical variants -3-c and -4-c (cf. Fig. 23, p. 87) were so far never applied in the Coḁamaṇḁalam. However, it is interesting to note that the proto-

type of the ground-plan of the Rājarājeśvara was used at Nārttāmalai, where the Vijayālaya Coḷeśvara (V-5-c) is the elaborate variation of the -4-b layout. Furthermore, the sthāpatis adapted the complete 3-B-3 layout which was a contribution of Śembyan Mahādevī's workshop, for they designed an ardhamandapa with straight walls without projections and a series of niches in each wall. By now this wide and elongated hall should rather be called a mukhamandapa, for the false antarāla has meanwhile turned into a real corridor. A staircase on either side of the antarāla leads up to the side-entrances of both buildings. From all we know about the tradition of the Early Coḷa sthāpatis, it is indeed not surprising that the application of this staircase — which is a new structural element in Coḷa architecture — is different in each building. At Tañjāvūr it extends well into the temple compound and, moreover, occupies the entire length of the antarāla wall, whereas at Gaṅgaikōṇḍaḷapuram it remains within the circumference of the shrine and is considerably narrower than the length of the corridor.

The concept of a real antarāla was applied as early as A.D. 875-890 at Niṇvāsanallūr, where the Koranganātha was constructed as a sāndhāra vimāna. In this building the staircase is still absent, for at the time the high upāna was not yet part of the Early Coḷa idiom. As soon as the upāna became an elevated part consisting of several mouldings, a staircase was required.

The tendency to add more and more niches to a building — a tendency which is noticeable throughout the Early Coḷa period down to A.D. 985 — was obviously continued in the two huge, imperial vimānas. In this connection it should be pointed out that — in contrast the Early Coḷa practice — the lateral niches occupy the lateral projecting bays on either side of the wide central śālā. The kumbhapañjaras are now placed in the recesses which in previous days were reserved for devakoṣṭhas.<sup>66)</sup>

The first tala walls are divided into two sections by means of an — in this place unexpected — intermediate kapota. Vertically the walls of both buildings are different. At Tañjāvūr the central bays contain huge doors — properly guarded by two gigantic dvārapālas (Fig. 62a). Furthermore, there is a kumbhapañjara in each of the eight recesses per wall. The space above the dvārapālas contains niches. So, in total there are ten devakoṣṭhas in each vimāna wall. At Gaṅgaikōṇḍaḷapuram, on the other hand, each dvārapāla is replaced by four rows of tiny attendant figures. This arrangement implies that right from the start the central bays were not meant to be used as entrances, as at Tañjāvūr. The four kumbhapañjaras in the lower part of the walls are replaced by niches in the upper part. There are also devakoṣṭhas above the "door-niche" which has no proper framework, since the half-size niche pilasters, the lintel as well as the main



... are absent. So, in total there are four kumbhapañjaras in each vimāna wall as well as thirteen niches (four under and nine above). Previously we noticed that Early Coḷa sthāpatis considered (kumbha)pañjaras and niches mutually exchangeable (p.177). Now we see this principle put into practice on the walls of one and the same building.

The next example of the supposedly intentional variation of the walls cannot be traced directly to the Early Coḷa idiom for the simple reason that Early Coḷa monuments are not as tall as the two vimānas in question and therefore their walls did not have to be divided into two parts. At Tañjāvūr, the two kapotas incorporated in each bay carry two large kūḍus, whereas at Gaṅgaikoṇḍacoḷapuram only one kūḍu is displayed above the lateral bays of the lower kapota. The two kūḍus of the central bay are almost touching each other. The upper kapota on the other hand, shows two kūḍus above the lateral bays and four above the central projection.

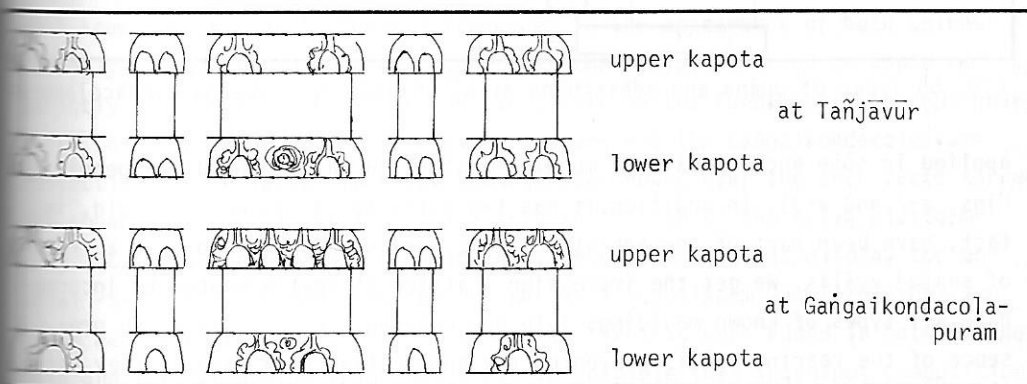


Fig. 64 Composition of the various first tala kapotas of the vimānas at a) Tañjāvūr and b) Gaṅgaikoṇḍacoḷapuram.

Turning our attention to the adhiṣṭhāna some further remarks can be made. Basically, the Rājarājeśvara is decorated with a IB1 sockle, of which the rounded kumuda is piped with a row of lotus petals (Fig. 65a) like that at Śrīnivāsanaḷlūr. However, the usually quietly seated vyālis above this moulding appear to be rearing animals spurred on by their riders and ready to jump. At Gaṅgaikoṇḍacoḷapuram the vyālis are again shown in their normal, crouched position. On the other hand, the entire building is supported by a series of watchful lions depicted in the panels of the upāna. The jagatī is ogeed as that at Tiruvaiyāṇū but no lotus-petals are carved on the curves (Fig. 65b). The platform under the Rājarājeśvara shows a circumference daringly different from that of the main building (Fig. 62a) and reminds us of the concepts which were



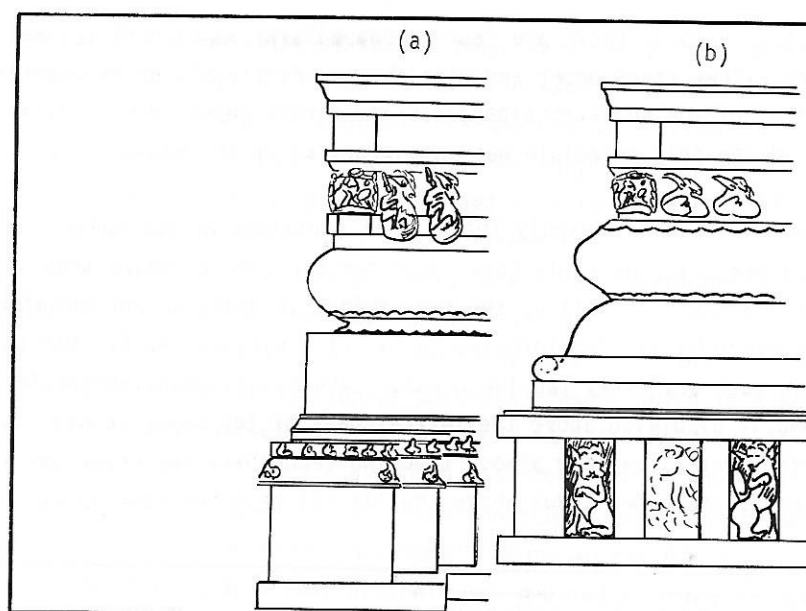


Fig. 65 Types of upāna and adhiṣṭhāna at a) Tañjāvūr and b) Gaṅgaikoṇḍacoḷapūram

applied in some ancient Cālukya monuments at Paṭṭadakal and Nandi (appendix 2, Figs. a-2 and a-3). In addition, it has two extra mouldings which should, in fact, have been part of the adhiṣṭhāna, viz. the kapota and above it a frieze of seated vyālis. We get the impression that the sthāpatis wanted to incorporate all types of known mouldings into one coherent design. Since the presence of the rearing vyālis prevented the application of a kapota, they added it under the jagatī. The upāna itself is plain. The square layout of the platform at Gaṅgaikoṇḍacoḷapūram shows an individuality of its own due to the presence of panels in which vyālis and purely ornamental motifs alternate. In this connection it should be pointed out that both innovations were combined in a third tall Coḷa building, viz. the Airāvateśvara at Dārāśūram (Pls. 100 a-e) which was constructed during the reign of Kulottuṅga I (A.D. 1070-1120).

As we saw in the paragraph dealing with the kāl, the introduction of new base mouldings coincided with new combinations of kāl profiles and additional kāl features such as nāṭṭya-peṇs (pp. 250 and 254). This tradition was carried on well into the 11th century, for each of the imperial koyils has its own specific combination of kāl profiles (SO/SO and SOM/SO, p. 262). Moreover, Rājendra's shrine (SOM/SO) displays rearing vyālis on top of the palagais and thus reminds us of the monument at Kumbakonam. The exuberance of tiny attendants covering the entire surface of the walls which is so characteristic of

the Gaṅgaikoṇḍacoḷeśvara, seems to be a superlative imitation of the first example of this decoration at Śrīnivāsanallūr (pp. 273-74). The application and position of the kāl variants on the two great shrines differ also. At Tañjāvūr the square kāl invariably adorns all projecting bays while the octagonal pilasters flank the niches. At Gaṅgaikoṇḍacoḷapuram the two outer bays as well as their devakoṣṭhas are decorated with square kāls, the intermediate bays and their niches with octagonal pilasters, while the central bays display the beautiful, polygonal shafts.

Turning our attention to the spires, we can establish a few striking features. In the first place, the profile of the pyramid at Tañjāvūr is steep as a result of a particular relation between height and width = 2:1 (p. 191, note 58). As the superstructure at Gaṅgaikoṇḍacoḷapuram is six metres lower it should have had a more pyramidal character than its counter-part at Tañjāvūr. However, it shows a remarkably concave curvature, while the upper talas of the roof seem to "undulate". These differences in the appearance of both spires can only be understood when we assume that the sthāpatis tried to apply as strictly as possible the square and the circle as the fundamental concept underlying the superstructures of the Rājarājeśvara and the Gaṅgaikoṇḍacoḷeśvara respectively. The latter monument demonstrates how clever the architects turned the square ground-plan of the vimāna into the circle of the grīvā platform (Fig. 66, b-1). In order to achieve this, the uppermost talas display the unusual -5- layout — known from the shrines at Tiruppalanam and Tiruvārūr — to which aedicules crowned with tiny octagonal śikharas were added in between the sālā and the karṇakuṭīs (Fig. 66, b-2). To complete this ingenious composition based on the circle, the peculiar round shrines which struck us at for instance Tiruppalanam (cf. Fig. 56, p. 289), re-appear in this building on the walls of

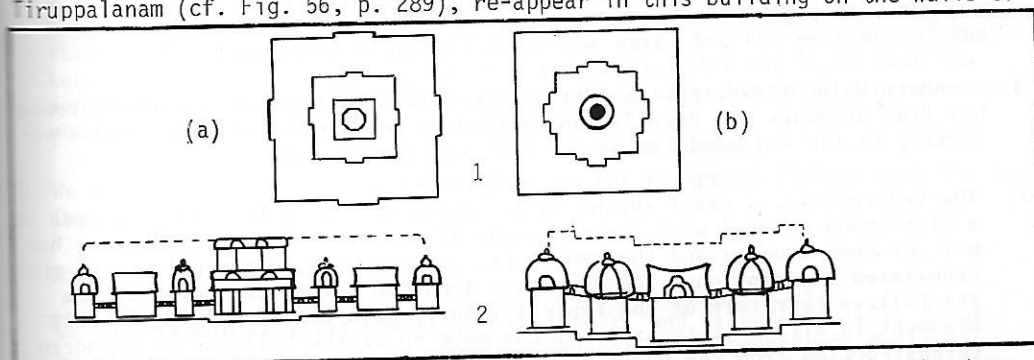


Fig. 66 Important features of the spires at a) Tañjāvūr and b) Gaṅgaikoṇḍacoḷapuram. 1. The ground-plan of the talas and the grīvā-platform. 2. The composition of the hāra in the upper parts of the spire.

the large śālā of the first hāra (cf. Fig. 56b, p. 289). The highly unorthodox round grīvā platform with its elegant circular kapota is in our opinion a copy of that at Nārttāmalai, where the sthāpatis were confronted with a similar problem, viz. how to transform a square into a circle (Pl. 87).

All the above mentioned arguments seem to prove beyond doubt that the imperial koyils at Tañjāvūr and Gaṅgaikoṇḍaḥapuram are the products of a development which started at Nārttāmalai ca A.D. 860 and was carried on throughout the 10th century. For, the appearance of the two buildings in question reveals that their sthāpatis continued to experiment with fundamental forms and shapes created by their fore-runners. Since this also applies to the smaller koyils spread throughout the delta, we propose to include both buildings in the same phase. As we concluded earlier on that the combinations of old, structural forms is characteristic of the Middle Coḷa style (appendix 11, pp. 386-87), we are, consequently, forced to place the caesura between the Early and the Middle Coḷa phase at A.D. 985, the year in which the first plans of the Rājarājeśvara were drawn. Although the sudden change in the shape of the podigai might seem to be a rather minor alteration, it happened to coincide with the beginning of a further step in the development of Coḷa architecture.



#### NOTES TO CHAPTER FOUR

- 1) Soundara Rajan (1978, pp. 116-17) rejected Barrett's typology but he borrowed his fine drawings (in Fig. 7) and omitted to mention two more main types occurring in the Coḷamaṇḍalam proper (cf. our appendix 12).
- 2) The Kedareśvara, a small shrine in the outskirts of Uttaramallūr, stands on a high upāna covered with inscriptions. At the time of our visit these had not yet been studied and the temple is, consequently, not mentioned in the translated inscriptions. The excentric location far to the north in the Pallava territory of the typically Early Coḷa lotus moulding on this monument is difficult to explain, the more so as the building is a modern reconstruction from the *vyali frieze* upwards. It can, therefore, not be established whether we are dealing with the remains of a Pallava shrine as suggested by the presence of the beautifully decorated upāna or with an ancient reconstruction from the *upāna* upwards by the Early Coḷas.

- De Lippe, p. 218. Contrary to what is generally assumed, we have grounds to believe that the Coleśvara was built some years after the completion of the Agastyeśvara from which its sthāpati copied the IIB1 base(see also our discussion on p. 290).
- After we had collected the material for this study Balasubrahmanyam's volume III appeared. It contains a dim illustration(pl. 398) of the shrine at Tennēri in which we can see that the central part protrudes and has a rounded kumuda. This adhiṣṭhāna probably represents type IB2a although IIB2a is not impossible either.
- The adhiṣṭhāna of the ruined Śiva koyil at Tiruvalaṅguḷi was partly excavated at our request at one of the corners of the vimāna where it is attached to the ardhamandapa. We found that both temple parts were standing on a IIB2a base.
- Dhaky 1971, p. 267 and note 14; Sastri 1966, p. 175. In order to illustrate that the inscriptions are vague and can be interpreted in different ways we mention the fact that Sastri in his first publication (1955) dated the battle at Sripurambyam (Tiruppurambyam) in which the fate of the Coḷas was decided positively, in A.D. 879, whereas in his second book he attributed this event to ca. A.D. 885. In both cases arguments are missing. Cf. Dhaky 1971, pp. 266-67 and notes 12-14 where the various conflicting opinions of Āditya's rise and political career are reviewed. So far, this discussion has not yet been settled among epigraphists and art-historians alike.
- Relations between Āditya I and the Irukkuveḷ chieftains must have been friendly since a record at Tiruchchendurai (p. 110) tells us that a daughter of one of these chiefs was married to a son of Parāntaka I between A.D. 893-910.
- For references see our appendix 14.
- The position of the protruding kaṇṭha blocks under the vari exactly under the pilasters of the pañjaras(Pl. 51) could be interpreted as an indication that the pañjaras were planned right from the start. Although pañjaras were a common feature on the old Cālukya monuments at Bādāmī and Paṭṭadakal, kaṇṭha blocks at regular intervals were always present regardless the position or the presence of pilasters above the vari. So, the presence of the kaṇṭha blocks on the walls of the Tirutiṇḍīśvara does not imply that the pañjaras were preconceived. They were probably intended to be decorated as shown in Pl. 69a.
- We shall return to the shrine at Kīlūr in the paragraph dealing with the kāl (pp. 265-67).
- Chandra 1975, pl. 125.
- We were unable to visit the koyils at Tennēri and Tiruppachchiyūr. So we had to rely on the illustrations provided by Balasubrahmanyam( Balasubrahmanyam 1975, pls. 283-89; and 398-400; idem 1971, pls. 291-94.



- 13) An inscriptions of A.D. 983 informs us that Śembyan Mahādevī made a huge gift to the Srīvimāna at Tirumullaivāyil. According to the epigraphist who published the record the palaeography is much later. Balasubrahmanyam did not know how to solve this problem. He therefore suggested without further comments that the shrine was completed in the early part of the reign of Rājarāja I. However, the specific remark by the epigraphist cannot be ignored, for it implies that the record was re-engraved considerably later than the period of Rājarāja I. On the other hand, the style of the temple is not "late" as we shall see further on. We would like to suggest the following solution. Gifts, especially large sums of money, were recorded on palm-leaves, copperplates and on temple walls. It is impossible that in later times somebody paging through the palm-leaf manuscripts stored in the offices of the elephant's back at Tirumullaivāyil discovered the record of Śembyan Mahādevī, in which she is said to have provided large sums of money by selling land. Taking it for a foundation record he may have had it inscribed on the walls of the shrine.
- 14) In general, mukhamaṇḍapas are rather wide halls prone to collapse since the full weight of the granite slabs of the roof rests on the walls and pillars inside. Since the ardhamāṇḍapa of the Vaceśvara at Tiruppachchāy is also rather wide, this hall may have caved in instead of the mukhamaṇḍapa. Consequently, the records mentioning the regnal years of Rājarāja I could originally have been written on the walls of this part of the temple no longer in existence.
- 15) Balasubrahmanyam 1975, p. 14.
- 16) The illustrations of Balasubrahmanyam (1975, pls. 398-400) do not allow a conclusion as to whether or not the shrine at Tennēri has a plinth.
- 17) In one more respect this attribution is acceptable. For, it is unlikely that priests of a dilapidated, brick perumal could raise sufficient funds to erect a stone koyil in a period the Vaiṣṇava persuasion was not supported by the royal family. With Rājarāja I a more liberal attitude towards Vaiṣṇavism seem to have prevailed. So, the elaborate reconstruction of the Perumal in question could have taken place during the reign of Rājarāja I.
- 18) Examples of renovated temples which are true copies of older ones judged by the refinement of their decoration, are located for instance at Tiruviśālūr and at Kīlūr (Barrett 1974, p. 88).
- 19) The same concept is displayed on the Vaisnava cave at Nārttāmalai (see Lippe, pl. 203).
- 20) Srinivasan 1961, pp. 350-52.
- 21) Soundara Rajan 1975, p. 300.
- 22) This almost completely destroyed shrine was to a certain degree successfully reconstructed by Pattabiramin from fragments lying around the ruins.
- 23) Balasubrahmanyam 1975, pp. 132-33, pls. 100-05.
- 24) The blocks above the niches, are, however, rather free interpretations of kapotas which cannot have been part of the original design.
- 25) The village was then called Valaiyar, the temple Tantonrīśvaram.
- 26) The only inscriptions referring to this temple were found at Brahmaḍēyam and Ennayiram — two towns which together with Dadapuram and Eśālem formed a small regional unit.
- 27) Balasubrahmanyam 1975, p. 147 under the caption Brahmapurisvarur.



- 28) Acharya, pp. 243- 49; Radhakrishna, pp. 203- 24; Gangoly, pp. 28-29, 61-64.
- 29) Dhaky 1977, pp. 8-11, 14-18, 21-22, 40.
- 30) However, the Mallikārjuna situated in the same compound as the Virūpākṣa at Paṭṭadkal has a round śikhara, whereas its neighbour displays the more common square roof. This early occurrence of the round shape seems to indicate that even in those remote days the dome was accepted as an alternative of the square śikhara.
- 31) The śikhara of the Pañcanādiśvara is round; as the grīvā-platform is octagonal, the original roof could also have been an octagon, but it is more likely that its roof is a copy of that at Melatiruppūndurutti, where the layout of the vimāna is square, while the grīvā-platform is octagonal and the śikhara is round.
- 32) Although the distribution-pattern is not realistic because not all octagons and squares can be mapped due to later renovations, we may assume that the renovators had to restore an equal number of octagonal and square śikharas. Therefore, the present distribution-pattern can be considered to represent the original spread in the same proportions.
- 33) The distribution-pattern on map 12 clearly demonstrates a preference for the square śikhara. Comparing it with the map provided by Soundara Rajan (p. 248, Fig. n) some "Muttaraiyar" shrines indicated with a circle in his map have a square roof instead of a dome (which he supposed to be characteristic of the Muttaraiyars), viz. the temples at Tillaisthānam, Tiruchchātturai and Nemam. The śikhara over the shrine at Tiruchchennampūndi has disappeared. The roofs at Śendalai and Tiruvaiaiyāṛū were renovated beyond recognition. The square grīvā platform at Kiranūr indicates that the original roof must have been a square. The shrine at Kannanūr is located beyond the southern Vellar, the ancient boundary between the Pāṇḍya and Pallava spheres of influence. It is not likely that the Muttaraiyars were living on both sides of this important boundary. So, the only shrine representing the assumed "Muttaraiyar" preference for a round śikhara is that at Nangavaram. The fact that there is only one building with a round roof in this area refutes Soundara Rajan's theory.
- 34) Chandra 1975, pls. 107- 09, 112- 13, 115- 16, 127, 135- 37 and 147. The bell-shaped profile of the roof on the Iravātaneśvara, a Pallava monument at Kāñcī (pl. 118) seems to point to a restoration carried out in the Coḷa period.
- 35) Balasubrahmanyam 1966, p. 105. Since Dantivarman is the name of one of the later Pallava rulers the fact that the village is mentioned under this name during the reigns of the first two Coḷa kings indicates that the Pallavas must have held sway over this area previously.
- 36) Ibidem, pp. 45-46. The dvārapālas — always included in a Śaiva shrine — were inserted later on, for there is no proper space for them ( de Lippe, pl. 205). Their pedestals could have been part of pilasters cut away.
- 37) For a proper understanding of our arguments see also Chandra 1975, pls. 129, 132, 142 and 145 (the subtitles under pls. 131 and 132 should be read in reverse order).
- 38) Soundara Rajan 1975, pp. 286- 87.
- 39) Balasubrahmanyam 1966, p. 87.
- 40) For a proper understanding of our argument, see Chandra 1975, pls. 138- 40, 142- 43, 150- 51.
- 41) These aspects are not included in our code-list (appendix 5). Originally it was

not our intention to study the superstructure thoroughly, because our method cannot be applied to a distribution-pattern in which many items are missing due to renovation and plastering. Fortunately, the superstructure of a relatively large number of shrines has survived in the Tiruchchirappalli District. In addition, the differentiation of ornamental details on these roofs appears sufficiently interesting to be included in our discussion.

- 42) This "round shrine" looks rather like a pillar, but it has a kapota decorated with small kūḍus and has, therefore, to be interpreted as a kuṭi. Over it is placed a tiny kapota the śikhara of which is framed by the kūḍu on the main kapota (Pl. 23). The whole concept reminds us strongly of the tall cylinder rising up over the second kapota of the Vijayālaya Coḷeśvara at Nārttāmalaī. The most unusual, round shape of the kapota on this building is particularly striking (Pl. 87). Similar pillar-like kuṭis are found on the grīvās at Tirumayānam, Puñjai and Uḍaiyārgudi (Pls. 43a, 60a and 60b) and far away at Kambadahalli in Mysore (State). However, on the older koyils this pillar or cylinder was part of a square grīvā, whereas in the first three villages it decorates a round grīvā.
- 43) The makaratorāṇas of the Agastyeśvara extend over the uttira, whereas those of the Coḷeśvara remain under it. The latter is the normal way of designing a makaratorāṇa, the former was never repeated again. We, therefore, believe that the Agastyeśvara should be clustered with the other koyils demonstrating experiments with the makaratorāṇa, i.e. the monuments belonging to the first and second phase (Fig. 42, p. 215). Its exquisite carvings, compared with those on the Koranganātha at Śrīnivāsanallūr, permit such a date (Pls. 31d, 33c, and appendix 6).
- 44) There is no inscriptional evidence contradicting this statement.
- 45) This is the year which Dhaky seems to accept without further arguments (Dhaky 1977, p. 18). He also seems to assume that the style of the buildings represents the Irukkuveḷ idiom without giving its characteristics.
- 46) Chandra 1975, pl. 127.
- 47) idem, pl. 129.
- 48) idem, pl. 130.
- 49) idem, pl. 132 (see note 37).
- 50) Soundara Rajan, 1975, p. 244.
- 51) Barrett 1974, p. 86.
- 52) Balasubrahmanyam 1971, p. 123.
- 53) idem, p. 109.
- 54) Balasubrahmanyam used a wrong argument when he stated that Parāntaka I is known to have defeated the Pallavas and gained possession of their country. First of all, the record of the Pāṇḍya king dates from the days of Rājendra and does not mention the place and time of the particular defeat. Secondly, we may take it for granted that the successful Parāntaka I defeated the Pallavas on their own soil, that is in the north and not along the borders of the Kāverī, as is stated in the record of Budi Vikramakesari (Balasubrahmanyam 1971, p. 123).
- 55) Sastri 1955, p. 113.
- 56) Balasubrahmanyam 1966, p. 81; see also our p. 33, note 8.

57) Having established *one* workshop responsible for temples built in a relatively vast area which was the domain of *four* groups of people, viz. the Muttaraiyars (Sendalai), the Irukkuvels (Koḍumbālūr), the Palluvettaraiyars (Kilāiyūr) and the Coḷas (Tañjavūr), we may as well assume that several sculptors were part of the same atelier. These artists - and their trainees - probably produced stone sculptures which display an ever greater variety than the buildings in which they are placed, due to the greater artistic freedom of sculptures in comparison with that of architects. An investigation of their images based on our attributions regarding the age of Early Coḷa buildings might contribute to the general discussion of Early Coḷa art resulting in

1. a proper classification of stylistic, sculptural features in a chronological sequence and
2. a denial of the importance of the four "nationalities" of the sculptors and, consequently, of their icons, since we assume that the same persons - all belonging to one workshop - were commissioned to carve images for temples situated throughout the entire region in question (cf. Dhaky, 1971, pp. 280-81).

A proper classification as well as convincing arguments with regard to a strong regional bias in "Coḷa" sculptural art are missing in the few publications dealing with this subject. To quote two prominent authors, the Coḷa-Nādu style is the result of "The counterplay of the two contradictory tendencies - to realize and to idealize, to elaborate as well as to schematize, to stabilize but also to vaporize" (Dhaky, 1971, p. 263). "Again, like the Muttaraiyars, the Irukkuvels and the Palluvettaraiyars do have an idiom of their own which is reinforced by certain iconographic peculiarities. However, their family and political affinities with the Cholas are reflected in a stylistic relationship which is very close" (de Lippe 1978, p. 168). Unfortunately, it is nowhere explicitly mentioned what should be considered a "peculiarity" and a closely "stylistic relationship", although now and again references are made to features which show affinity with the Pallava and or Cāḷukya style such as the Cāḷukya bell-chain around the neck of nandis, the female figures decorating hāras, the motif of a warrior on either side of Durgā about to immolate himself and miniature shrines incorporated in hāras (de Lippe, 1978, pp. 163, 166 and 173 respectively). In order to discover the criteria which are hidden behind the panegyric adjectives describing regional biases in Coḷa art we compiled the table on p. 328.

In addition to this we may add the qualifications of Dhaky with regard to the style of Parāntaka I, which according to him is characterized by "an accent of trans-substantiation, material solidity, spiritual essence at one place and by the fact that it is beyond gravity, beyond reaches of representation, human on a higher plane of existence and other qualities due to an emerging bronze tradition" (Dhaky, pp. 281-83).

Apart from the fact that this terminology is rather vague, incomplete and applied inconsistently, it is, moreover, based on several distinctions which are not clear. For instance, sculptures from Sendalai and Tiruvēdikkudi are characterized by Dhaky (pp. 267-68) as Early Coḷa but pre-Āditya I in spite of the fact that he himself created a separate category of pre-Āditya I images, i.e. the Vijayālaya style (p. 268). Another remarkable - and unexplained - phenomenon is the duration of the second half of the Early Coḷa phase assumed by de Lippe (pp. 172-74). According to him it lasted for forty years from A.D. 886-927 and includes sculptures from Kumbakonam, Puḷḷamaṅgai and Śrīnivāsanallūr. Dhaky, on the other hand, made a distinction between an Āditya I phase and a Parāntaka I style (pp. 281-83) represented by Kumbakonam as well as Puḷḷamaṅgai and Śrīnivāsanallūr respectively, without further comment.

Characteristics of sculptural art in the Kaveri area between A.D. 850-900 as described by Dhaky (1971) and de Lippe (1978).

	Muttaraiyar de Lippe (p.172) Dhaky (p.272)	Irukkuvel Dhaky (p.279)	Vijayalaya Dhaky (p.268)	Aditya I Dhaky (pp.275-77)	Early Cola de Lippe (pp.172-76) Dhaky (p.272)	Parantaka I de Lippe (pp.174-75)
Body	slender body	slimphysique	?	?	?	?
Arms	slightly tilted raised hand	very recti- linear pipe- like arm	?	?	?	?
Head	barely per- ceptible movement of head	head either static or thrown in tilt "that only Muttaraiyar fellow can throw	?	?	head tilted in charming way	incomparably beautiful tilt of head
Jewels	cabochon jewels studded with square emeralds and round rubies in matrix of thin ribbon	?	meagreness of ornaments	?	?	?
Smile	Faint dreamy, uneasily smile	?	illusory smile	sharply cut eyelashes hollow stare	squarely round face	unsmiling face; calm, gentle expression; elongated face
Pose	?	?	?	extremely graceful body-bend;	graceful stance; graceful triple- bend pose (Durga)	full of inner calm, unsmiling but irresistable
Other remarks	?	?	?	feeling for texture	sublimated realism, perfect realization of the transcendent; breathaking, arrogant charm	less realistic



In our opinion, research on Coḷa art has suffered from two defects. Firstly Coḷa temples were, so far, not dated in a satisfactory way. Nevertheless, their dates strongly influenced the discussion on the style of sculptures. In the second place, bitterly and/or lengthy disputes regarding the regional origin of style absorbed most of the attention. In case one can accept our attributions and our suggestion of the existence of a workshop - in which several artists from one or more communities - were working together, a more satisfactory picture of a developing style would eventually emerge from the otherwise abstract contemplations leading to statements such as "the fundamental contrast between the Muttaraiyar and Coḷa sculptures is in feeling" (Dhaky, p. 272).

- 58) Balasubrahmanyam 1966, pl. 105; Krishna Rao, p. 232.
- 59) Cf. appendix 3, Fig. b; Balasubrahmanyam 1966, pls. 107- 09; the monuments in the tracts of the Western Gaṅgas and the Eastern Cāḷukyas are, unfortunately, not firmly dated but are supposed to have been built in the 9th 10th centuries and the second half of the 9th century, respectively. Krishna Rao, p. 235; Prasad, p. 90.
- 60) Balasubrahmanyam 1975, pp. 269- 72, pp. 267- 69, p. 276.
- 61) The koyil located at Mahārājapuram and the Wanyaganātha at Tiruvārūr, as well as the Amman shrine in the compound at Gaṅgaikondacolapuram (appendix 11, no. 33) do not have records dated earlier than the periode of Kulottuṅga I, i.e. A.D. 1070. The shrine at Mahārājapuram was discovered accidentally by us - like that at Manampādi - in the course of our frequent travels throughout the delta. It is constructed of very coarse, granite blocks, is heavily eroded and partly rebuilt in such a bad way that some pilasters were replaced upside down in the walls. On the basis of a few images lying in the grassy patches around this shrine, it can be stylistically linked to the temples at Manampādi and Ramanātha Kōyil.
- 62) Balasubrahmanyam 1975, pp. 276- 77. Here Balasubrahmanyam relates in a lively way the building history of the shrine in question on the basis of a detailed inscription which is also interesting in another respect, for it states that "...these gifts [between the 18th and 20th regnal year of Rājendra I] were not taken into the temple books and the temple treasury till the twentieth year of Rājendra I" (A.D. 1032). This lapse of time between the endowment of these extremely precious donations (for gold-plating and gilding parts of the vimāna, the entrance and the four sides of the shrine) and their being recorded confirms practices suggested by us earlier on (pp. 161- 62).
- 63) Balasubrahmanyam 1975, pl. 204. In the Late Coḷa spires at Dārāśuram and Tribhuvanam (Tj) this additional, second kapota was incorporated in every course. This implies that once again South-Indian architecture was influenced by innovations from the Palar area and not by those invented in the Coḷamaṇḍalam.
- 64) Idem, p. 235.
- 65) For a proper understanding of our argument see Balasubrahmanyam 1975, pls. 4, 7-9, 13-15, 19, 204-05; de Lippe, colour plate L, p.400; Volwahren, pp. 78 and 87.
- 66) Cf. Balasubrahmanyam 1975, pp. 18-19 and 248. The iconographical layout of the Rājarājeśvara is dominated by Śaiva sculptures. In our opinion



it is significant that along the walls of its ardhamandapa the first(?) Vaiṣṇava icons re-appear in the Colamandalam, viz. Viṣṇu and his consorts between Gaṇeśa and Gaṇalakṣmī (south wall) or between Sarāsvatī and Mahisāsura-mardīnī (north wall). A representation of Brahmā is altogether absent. At Gaṅgallu-ḍacolapuram, on the other hand, Vaiṣṇava figures are better represented. Viṣṇu as well as Brahmā are depicted thrice. Another remarkable difference between the two imperial koyils is the introduction of the dikpālas and Rudras in the walls of Rājendra's shrine. In other parts of South India these guardian deities were occasionally placed in the exterior walls of a vimāna. The Eastern Cālukya monument at Biccavolu for instance displays these kind of figures as early as the (middle of the 10th century (cf. Pl. 16). One of the Eastern Cālukya monuments at Biccavolu, for instance, displays these figures as early as the middle of the 10th century (cf. Pl. 16).



## Conclusions

In this study we have tried to establish the architectural contents of the term Early Coḷa by means of a specific geographical approach, for inscriptional evidence with regard to this subject is often vague or even altogether absent and the interpretation of the stylistic terms are at best divided and often even conflicting.

We have restricted ourselves to the study of some basic features, for many, especially decorative, details have disappeared in the course of a millenium. On the other hand, the layout of a building and the vertical composition of its first tala are less easy to be affected by the wear and tear of time. Apart from these structural elements, some purely ornamental parts such as the base, the pilaster, the corbel and — in some areas — the exterior appearance of the superstructure, normally retain their original character. While studying the variation of these elements and their distribution throughout Tamil Nāḍu, not only the picture of the Early Coḷa style of architecture became progressively clear(1), but we learned much about its various phases of development(2) and the regions in which it can be recognized(3).

### 1. The Early Coḷa style of architecture

First of all we established the individual, "variable" and "non-variable" features of each monument. These features indicated the existence of an older and a younger group of koṭils. Furthermore, we discovered some striking subgroup-characteristics within the older set of shrines, revealing the existence of two ateliers.

The "non-variable" features appeared to be:

1. a projecting bay (in the centre of the walls of the vimāna) containing a main shrine (cf. Figs. 24a-b, p. 89; map 5; Figs. 30a-b, pp. 103, 111; map 6; appendices 12 and 14 vs. 13 and 15);
2. a new type of niche including half-size niche pilasters, a lintel and a main shrine with a particular contour and ornamentation; its floor coincides with the top of the paṭṭikā (Fig. 29d, p.98; map 6; appendix 6, Figs. a-g vs. appendix 3, Fig. a);
3. a vari interrupted by niches in the walls of the first tala (map 10; appendices 12 and 14 vs. 3 Figs. a 1-3, and appendices 13-15) as well as by the niches of the hāra (Fig. 56, pp.288-89);
4. a wide variety of kāls on one and the same building (Figs. 49-54, pp.247, 252, 254, 260 and 262; map 11; vs. appendix 3, Fig.b; appendix 12 vs. 13-15);
5. a podigai of the throated or angular type normally decorated with a median band and a small vertical fascia (Fig. 57, p. 300; appendices 12-15 vs. 13-15; Fig. b);
6. no decoration of the walls except for a few small, seated figures on either side of a devakoṣṭha (map 13);
7. a prastara consisting of three mouldings, viz. a frieze of either seated or running animals such as vyālis, lions or elephants; a kapota with a straight profile and decorated with kūḍus, crowned by a śiṃhamukha, or rosette which are either loose blocks or part of the kapota slabs, while the kūḍu frames consist of various types of fluttering, leaf-like ornaments (appendix 6, Figs. c-g vs. Fig. b); a frieze of bhūtagaṇas between uttira and kapota; and
8. a śikhara with a bell-shaped profile (cf. appendix 3, Fig. b).

Numbering on, the "variable" features are:

9. a specific relation between the layout, the height and the number of pilasters of the first tala (Figs. 22 a-c, p. 86, Fig. 23, p. 87, Figs. 24 a-b, p. 89; map 5);
10. a specific relation between the width of the ardhamandapa and the way it is connected to the vimāna (Figs. 33 b and d, p. 151; map 6); and
11. a specific relation between the width of the ardhamandapa and its number of niches (Fig. 35, p. 160, Figs. 39-40, pp. 208-09; appendices 12-15);

The specific nature of these relations depends on:

- a. the geographical position of the koyil in question with regard to either Tañjāvūr (applicable only to shrines in the Kāverī area) or to some old Pallava centres (as in South Arcot) or with regard to the entire Kāverī area (maps 5-6);
- b. the founders of the koyil (pp. 149-50).

The "non-variable" features 1 to 7 are the result of experiments carried out systematically in a small tract around Tañjāvūr, called by us the Sapta Sthāna area. They received their "non-variable" character only ca. A.D. 900 (Fig. 39, p. 208, Fig. 42, p. 215, Fig. 50, p. 250, Fig. 56, pp. 288-89 and 299-301). Strictly speaking, the monuments located in the Irukkuvel tract cannot be classified as Early Coḷa for three reasons. Firstly, they do not have a vari; secondly, they show no variation in their kāl̥s and thirdly, with one exception at Śrīnivāsanallūr, they do not have lateral sculptures. However, the absence of these features was also noticed on one or more of the early experimental Coḷa works. We, therefore, concluded that the Irukkuvel monuments have to be considered as the earliest export products of the sthāpatis working in the area near Tañjāvūr (pp. 214-19, 251-52, 297-98).

The variable features 9 to 11 show a steady relation till A.D. 985. From then onwards all combinations between height, layout, number of pilasters, width of the ardhamandapa and number of niches is allowed without a clear preference for one specific new combination or a location in a particular area (appendices 7, 10-11, 14 as compared with 13 and 15).

Apart from these individual features the Early Coḷa temples display the following distinctive characteristics, viz.:

1. pañjaras and lateral niches in the vimāna as well as in the ardhamandapa are mutually exchangeable and do not show a relation with either the layout or the sum total of the niches (Fig. 32, p. 115, pp. 149-50; map 6A; appendix 8);
2. an indifference with regard to the shape of the śikhara which can be round, square or octagonal, though its profile is invariably bell-shaped (map 12);
3. an almost 100% variance with regard to combinations of kāl̥ profiles and additional decorative details such as the idaḷ, kaṇṭha, panels, nāṭṭya-peṇs and vyālis (Figs. 50-54, pp. 252, 254, 260 and 262), indicating the existence of a check-list of theoretical combinations (p. 249) on the basis of which each possibility was tried out once;
4. a tendency to vary the types of base in connection with one particular set of kāl̥ shapes (Figs. 50 and 52);
5. a tendency to vary the types of layout combined with one type of base (Figs. 39-40, pp. 208-09 and Fig. 52, p. 254);
6. inventions of new types of base coinciding with the introduction of new layouts (appendix 12); and
7. a steady increase in the number of images in niches resulting in adaptations of the layout (appendices 7, 9, 10-11, 13 as compared with 14-15).

On the basis of these group-characteristics the Early Coḷa koyils can be divided into two distinctive clusters, one belonging to the 9th century and the second more or less coinciding with Uttama Coḷa's reign (A.D. 969-985). Temples built during the intermediate period first show a strict adherence to the above mentioned individual features (Tiruppurambyam, Tiruvādūtūrai and Karandai) as well as a prolongation of the group-experiments, and later on do not demonstrate a strong link with either the first or the second cluster (Tirukkaliṭṭattai, Tiruppaltūrai). The same applies to all monuments outside the Kāverī area not carrying inscriptions which explicitly mention the involvement of members of the royal family in connection with the construction of the koyils in question.

In contrast to the second cluster there is a third group of shrines characterized by:

1. a 100% variance with regard to the vimāna - *crum*- ardhamaṇḍapa layout (appendix 11);
2. an ostentatious preference for two known types of base, viz. those applied at Tañjāvūr and Gaṅgaikoṇḍaḷapuram (appendix 11, Fig. 54, p. 262); and
3. a mere duplication of known combinations of kāl shapes without additional decorative details and without the more impressive polygonal shaft (Fig. 54, p. 262 as compared with Fig. 52, p. 254).

Individual but "variable" features are, moreover, the frequent use of kumbhaśiraṣas, the replacement of the makaratoraṇa by a kapota and a frieze of lotus petals instead of bhūtagaṇas (Figs. 58 and 60, pp. 303 and 306) as well as the application of the T-shaped podigai when a temple was raised at a new site. The third group consists of about ten shrines all built in the first half of the 11th century when manpower was concentrated at the two Coḷa capitals.

An intermediate, fourth group of koyils clearly demonstrates a transitional character, for it already shares the maximum variety of layouts with the 10th century monuments, whereas, on the other hand, it displays the ingenuity of the early sthāpatis with regard to the selection of kāl shapes (Fig. 52, right side, p. 254) and a tendency to combine two types of layout with two types of base. Moreover, the steady increase in the number of images in niches came to a standstill during the construction of this group. However, at the same time, the number of devakoṣṭhas in the walls of the Rājarājeśvara at Tañjāvūr increased tremendously while, concurrently, it became customary to place bronze figures inside maṇḍapas.

From the above it is obvious that clusters and, consequently, individual koyils can be dated within relatively narrow limits as indicated in the following section.



## **The development of Coḷa architecture between A.D. 850-1044**

Before paying attention to the question where to place the caesurae between the pre-Coḷa and the Early Coḷa period as well as between the Early Coḷa and Middle Coḷa period we shall first summarize various phases of development. Each of them is characterized by a specific cluster of monuments and presents a particular problem.

- A.D. 870 This phase is best represented by the Vijayālaya Coḷeśvara at Nārttāmalai. Its appearance reflects the regional practice of carving huge panels on the inside walls of caves dedicated to either Śiva, Viṣṇu or the Jina and to worship simultaneously minor deities in separate, tiny chapels. The walls of the shrine demonstrate that the otherwise capable artists ignored the possibility of turning the interior of the caves inside out and, consequently, left the first wall of this tall tritala plain.
- A.D. 870 - 900 Emphasis on Śaiva religion resulting in liṅga worship and exclusion of the cult of Viṣṇu and the Jina; experiments with all eleven essential features mentioned above; crystallization of two dominant types, viz. the dvitala at Nemam and the ekatala at Tirukkāḷavūr; introduction of three types of base as well as the polygonal and round pilasters.
- A.D. 900 - 940 Further experiments with regard to the shape of pañjaras and their position on the walls; during this period these elements diminished in size and number; acceptance of a false antarāla in combination with five niches in an ekatala.
- A.D. 940 - 969 Adoption of an iconographical layout requiring five niches in the Tiruchirappalli District and in South Arcot; otherwise no further additions.
- A.D. 969 - 985 No further experiments with the shape of the vimāna; introduction of a new type of layout; introduction of new types of base in combination first with ekatalas, then with dvitalas and finally with one tritala; new combinations of kāl shapes among the full set of pilasters; variations of kāl shapes on one and the same pilaster; systematic variance of additional kāl features which are each time repeated above another type of base; complete series of existing vimāna types on one particular type of base.
- A.D. 985 - 1000 Phase in which all types of dvitalās occur in combination with all types of layout; re-introduction of the pañjara and/or lateral niches in either the vimāna or the ardhamandapa; continua-

tion of kāl experiments; no further experiments with the base; introduction of a new layer in the upāna, a kumbhapañjara in the recess and a change in the position of the lateral niches, for they no longer occupy the recessed wall space but the projecting bays; introduction of a new type of podigai.

A.D.1000-1044 Phase in which all former types of vimāna are combined with all types of layout; preference of two former types of base; reduction of kāl shapes as well as additional kāl features; occasional imitation of features introduced in the design of the Rājarājeśvara (position of niches, kumbhapañjara, shape of the podigai); first appearance of kapota above niches; liberal attitude towards Vaiṣṇavism and Jainism.

There remains a problem which has never been tackled properly by any author viz. which of these seven phases belong to the Early Coḷa period and which should be attributed to the Middle Coḷa period. In this connection, we can apply several criteria.

In the first place, styles can be related to changing religious practices. From this point of view the Early Coḷa period would fall between A.D. 870-1000, i.e. the time in which a strict Śaivism seems to have dominated the minds of the Coḷa kings and, consequently, those of their sthāpatīs and sculptors. The preceding phase was characterized by a liberal attitude on the part of the rulers towards other Hindu deities as well as Buddhism and Jainism. We are well informed about the villagers but during the Middle Coḷa period this earlier liberal attitude had definitely reached the village level throughout the Coḷa territory.

In the second place, the dichotomy between experimental (Early) and mature (Middle) stages in a development can be used as a criterion. Depending on the definition of "experimental" and "mature" and depending on the features to which these terms are applied, the Early Coḷa period covers the years A.D. 870-985. For, experiments with regard to the general layout and vertical composition were carried out throughout that period. In later years the sthāpatīs were recombined the earlier types. The huge buildings at Tañjāvūr and Gaṅgaikondra puram are enlargements of the Early Coḷa dvitāla in combination with a special type of ardhamāṇḍapa. The height of these two monuments is the result of pīṭhātala upon tāla in an ever diminishing size. Alterations with regard to minor and, moreover, purely decorative details such as the shape of the podigai, the design of the kumbhapañjara as well as the incorporation of adhiṣṭhāna mouldings into the upāna can be considered the demarcation of the stage of

maturity. The height of the two imperial monuments seems to accentuate this coming of age of Coḷa architecture.

In the third place, changes in technique can be used as a criterion. However, this criterion produce no results, for important changes did not occur before the beginning of the Late Coḷa period. It was only in the 12th century that bricks were re-introduced as building material, especially for the superstructures. Previously, the technique consisted of piling up large blocks of granite till the required height was reached. Horizontal beams were placed upon these walls in order to span the width. In general, the floor consisted of a layer of granite slabs. The disadvantage of this criterion is obvious, for it eliminates the so-called Middle Coḷa style, while on the other hand, the Early Coḷa period would cover more than two centuries. A period of this length is not helpful in understanding the developments which took place.

In the fourth place, changes in the most important feature of a particular style of architecture can be used as a criterion. In our opinion the niche is the most important contribution of the early Coḷa sthāpatis to South Indian architecture. As the framework of the devakoṣṭha changed drastically only in the Late Coḷa period, this criterion — like the previous one — makes a intermediate period redundant. It, therefore, has to be rejected as well.

In the fifth place, changes in the corbel might be used as a criterion as is commonly done in Western architecture. Basing ourselves on this characteristic the Early Coḷa period should once more be dated between A.D. 870-985. This criterion has the advantage that it distinguished not only the Early Coḷa style from the Middle Coḷa style, but also the pre-Coḷa from the Early Coḷa phase and the Middle Coḷa from the Late Coḷa monuments.

In view of the above considerations we propose c. A.D. 870 as the beginning of the Early Coḷa period while its end coincides with the death of Uttama Coḷa in A.D. 985. The Middle Coḷa period covers the reigns of Rājarāja I (A.D. 985-1012) and his son Rājendra I (A.D. 1012-1044) and most probably extends well into the days of Kulottuṅga I (A.D. 1070-1120).

### **3. The influence of Early Coḷa architecture outside the Coḷamaṇḍalam**

We can be brief with regard to the extent of Early Coḷa influences which we postulated in chapter one. For, it is basically regional, despite the political expansion of Coḷa power during the reign of Rājarāja I.

The few shrines built after A.D. 1000 in the Palar region indicate an independent regional development, while in the 10th century no kings ruled this area effectively nor were stone temples carrying royal names erected. The transformation of a province near the border into one situated more or less in the heart of a large empire may well have stimulated the economic circumstances of its population. Consequently, the artistic revival of this old cultural centre reflects more its original roots than the political domination of the Coḷas.

In South Arcot the Early Coḷa period covers the second half of the 11th century. Here the monuments display Early Coḷa characteristics. This should however, not be interpreted as an indication of cultural influence by the Coḷas in this area. For, it appears that whoever ruled this part of the country, left his imprint in the form of one or two shrines. This practice did not, however, create a regional style in which alien ideas were blended successfully.

In the Tiruchirappalli District building activities were reduced to almost a minimum after the school of Āditya I moved into the delta. From this observation we may conclude that the monuments erected under the supervision of the Irukkuvēḷ chieftains — apart from even more convincing arguments based on their style — were not raised by local artists but by the sthāpatis and craftsmen belonging to Āditya's atelier.

We may summarize our quest of the origin and influence of Coḷa architecture by saying that its roots lay at the foot of the tall building at Nārttānaḷai, while its influence did not reach much further north than the shadow of the Gaikōṇḍacoḷeśvara at noon in spite of the name of this monument.



## Dutch Summary

(voor plaatsnamen zie kaarten 1-3)

In het zuidelijke gebied van Voor-Indië dat ongeveer samenvalt met het huidige Tamil Nāḍu, is tussen 850-1050 A.D. een bouwstijl ontstaan die tot op heden — althans daar — onovertroffen is. Alle artefacten uit die periode, zoals tempels and stenen of bronzen godenbeelden, worden in de kunstgeschiedenis als Vroeg en Middel Coḷa aangeduid, naar de dynastie die Tamil Nāḍu in die tijd regeerde. De Coḷamaṇḍalam (=gebied der Coḷas) viel aanvankelijk samen met de Kāverī delta en daar zijn dan ook de meeste en indrukwekkendste vormen van Coḷa kunst ontstaan.

Tot op heden is weinig bekend over de vroege geschiedenis van de Tamils en hun religie. Op grond van een aantal oude grottempels gewijd aan Śiva, Viṣṇu en de Jina kan men aannemen dat deze drie godsdienstige stromingen aan de vorstenhoven bekend waren. Het is echter de vraag of deze uit het Noorden geïmporteerde religies weerklank vonden bij de lokale bevolking. Afgaande op het zeer geringe aantal vroege stenen koyils (=tempels), mag men stellen dat pre-Arische goden bij de dorpingen lang populair gebleven zijn. Trouwens dat zijn ze nog steeds. Het grote aantal grottempels lijkt hiermee in tegenspraak, maar men moet zich realiseren dat deze vrijwel nimmer in de dorpskern gesitueerd waren en bovendien meer ten dienste stonden van een groep religieuzen. Is onze kennis over de religieuze verhoudingen al vaag, de opkomst van de Coḷas is nog meer in nevelen gehuld. Wel is bekend, dat de eerste grote Coḷa vorst Āditya I, een fervente aanhanger van Śiva was en dat hij in een groot aantal dorpen langs de Kāverī granieten heiligdommen liet bouwen, die de Śaivaitische eredienst vermoedelijk veel dichterbij het volk brachten.

Grottempels zijn echter geen basis voor een ontwikkeling in de vormgeving van een structurele bouwstijl. Wel kan men uit hun bestaan afleiden dat er een



hoogontwikkelde techniek bestond ten aanzien van het bewerken van graniet. Een a-Śaivaitische instelling van de bevolking is al evenmin bevorderlijk voor een architectuur die bij uitstek bekend staat door het etaleren van de vele facetten van een god die in het verborgene huist. Een puristische beëindiging van een koning ten opzichte van één godheid in een land waar tenminste drie godsdiensten het religieuze spectrum beheersten, is een derde factor die de ontwikkeling van de Coġa bouwstijl bemoeilijkte en in elk geval beïnvloed zal hebben. Niettemin ontwikkelde de Coġa architectuur zich in ruim een eeuw uit kale granieten doosjes van niet meer dan  $4 \times 4 \text{ m}^2$  tot het ontzagwekkende hoge granieten gevaarte dat met een vloeroppervlak van  $30 \times 30 \text{ m}^2$  in het centrum van Tañjāvūr — de hoofdstad der Coġas — niet alleen de stad maar ook de gehele omgeving domineert.

Onze intense verbazing over een zo snelle ontplooiing van talenten in moeilijk te bewerken materiaal vertaalde zich bijkans vanzelfsprekend in de probleemstelling van dit proefschrift. We wilden weten hoe een dergelijke ontwikkeling is verlopen, binnen welke tijdsgrenzen de Vroege Coġa periode moet worden, en hoe ver de slagschaduw van deze "torenhoge" ontwikkeling reikte.

In het eerste hoofdstuk wordt uiteengezet waarom de beantwoording van onze, door anderen reeds eerder opgeworpen, vraagstelling tot nu toe onbevredigend is geweest. Dit laatste is het gevolg van de toegepaste onderzoeksmethoden. Het was en is nog steeds gebruikelijk de tempels te dateren op grond van de in hun muren gebeitelde inscripties. Daarnaast worden de monumenten op een jaartal voorzien met behulp van bepaalde stijlkenmerken van de in muren aanwezige beelden. Aangezien aan beide methoden ernstige bezwaren kleven stellen wij een derde voor, die waarde toekent aan de locatie van een heiligdom binnen een gegeven spreiding van andere monumenten met dezelfde of andere kenmerken ten opzichte van een (cultureel) centrum, d.w.z. Tañjāvūr. Wij gaan daarbij uit van de gedachte dat de expansie van het zich eertijds vernieuwend religieus besef is af te leiden uit de spreiding der tempels. Bovendien zal de godsdienstige ontwikkeling — waaryan verondersteld wordt dat die in Zuid-Indië gepaard ging met een gestage uitbreiding van specifieke iconografische voorstellingen — blijken uit de variatie in tempeltypen. Naarmate de gebouwen verder van het religieuze middelpunt liggen, zijn volgens deze gedachtengang de variaties recenter.

De kern van dit hoofdstuk bestaat uit een overzicht van distributie-

bronnen, die men in Tamil Nāḍu mag verwachten op grond van beschikbare informatie over terreineigenschappen, het sociale en politieke leven van de negende tot en met de elfde eeuw en de ontwikkelingen die zich gedurende deze drie eeuwen in de iconografie van Zuid-Indië hebben voltrokken. Deze, overigens schaarse, gegevens bepaalden in eerste instantie de tempelonderdelen die wij wilden bestuderen. Tevens maakten zij het mogelijk de kaartbeelden, die de verspreiding van variaties per tempelonderdeel weergeven, te interpreteren.

In het tweede hoofdstuk wordt een globaal overzicht gegeven van de architectuur in de veronderstelde bakermat der Coḷa kunst. In dit kader worden essentiële kenmerken van de tempels in noordelijker gelegen cultuurgebieden besproken, en wel die van de Pallavas, de Cāḷukyas, de Bāṇas en de Westelijke Gangas. Tevens wordt aangetoond dat er geen invloeden van de Pāṇḍyas op de Coḷa architectuur te bespeuren zijn, omdat dit volk dat ten zuiden van de Coḷamaṇḍa-land leefde, voor zover bekend tot het einde van de negende eeuw uitsluitend grattendempels uithield. Bovendien wordt een overzicht gegeven van de heersende opvattingen omtrent de datering en ontwikkeling der Vroege Coḷa stijl. Het hoofdstuk besluit met een verantwoording van de keuze der tempelonderdelen, die in de volgende twee hoofdstukken aan de orde komen.

In het derde hoofdstuk vindt de vaststelling plaats van perioden en gebieden waarin de Vroege Coḷa stijl zich ontwikkelde. We bespreken achtereenvolgens de distributiepatronen van de vimāna (= sanctum) in al zijn varianten, van de vimāna met pañjaras (= nis vervangende muurdecoraties) in al zijn verscheidenheid en van de ardhamandapa (= voorhal), alsmede de wijze waarop deze aan aansluiten aan de vimāna. Belangrijke variabelen in zowel de vimāna als de ardhamandapa zijn enerzijds het aantal in de buitenmuren aanwezige nissen, het grondplan, de hoogte als ook het aantal pilasters en anderzijds de strikte samenhang tussen grondplan, hoogte en aantal pilasters. In alle spreidingspatronen laat zich een centrum onderkennen met daaromheen een aantal zônes, elk gevuld met op elkaar gelijkende monumenten. In de onmiddellijke omgeving van Tanjāvūr werd geëxperimenteerd met alle genoemde onderdelen en hun varianten. Het is opmerkelijk dat men aanvankelijk zoveel mogelijk nissen verwerkte in een met de Pallava stijl verwant grondplan. Voorts trachtte men op allerlei manieren de nissen te elimineren. Deze poging zou men eventueel kunnen verklaren door een verbod aan de kunstenaars om, naast de manifestaties van Śiva, nog andere goden af te beelden. Deze experimenten zijn duidelijk uit een vijftiental monumenten af te lezen. Zij resulteerden in twee hoofdtypen. Het eerste is de drienissige dvitala (= gebouw met twee verdiepingen plus koepel) die vrijwel uitsluitend ten westen van de hoofdstad voorkomt. Het tweede type — een dvitala met vijf nissen

waarvan drie in de vimāna en twee in de ardhamandapa — treft men voornamelijk ten oosten van Tañjāvūr aan. Het verschil in voorkomen is geografisch duidelijk. Ten westen van deze stad woonden eerstijds de Muttaraiyars en Irukkuvels. Deze vazallen van de Coḷas bezaten een historisch aanwijsbare voorkeur voor twee goden van het zgn. tweede echelon, nl. Gaṇeśa en Durgā, die zij uitsluitend in aparte kapelletjes vereerden. Waarschijnlijk maakte deze gewoonte nissen voor deze twee goden in de muren van de ardhamandapas overbodig. De Coḷas zelf konden vermoedelijk deze specifieke vormen van eredienst niet, zodat in hun gebied nieuwe heiligdommen opgericht werden die — overigens in navolging van de noordelijker gelegen bouwstijlen — nissen voor beide goden in de muren van de ardhamandapa hadden. De regionale voorkeur voor een bepaalde hoogte van de gebouwen kan samenhangen met de totaal verschillende geologische gesteldheid in beide streken. De Irukkuvels woonden in een gebied met graniet terwijl de Coḷas zetelden in de Kāverī delta op grote afstand der steengroeven.

Ten oosten van de zōne met dvitalas bevindt zich een gebied waar voor het merendeel ekatalas werden opgetrokken die met enkele dvitalas de volgende kenmerken gemeen hebben: een vergroot aantal nissen in de buitenmuren van de tempels, alsmede de afwezigheid van de pañjaras zowel in de vimāna als in de ardhamandapa. Het oostelijk van deze zōne gelegen kustgebied herbergt tempels die opnieuw pañjaras vertonen, maar nu ōf langs de muren van de vimāna ōf langs die van de ardhamandapa. Het aantal nissen per muursegment is afhankelijk van de aanwezigheid van pañjaras en kan maximaal drie bedragen. In deze zōne bevindt zich tevens de enige tritala (= gebouw met drie etages plus de koepel). De van west naar oost toenemende omvang van de tempelgebouwen, zowel naar aantal nissen als hoogte gerekend, mag men naar onze mening relateren aan missionaire activiteiten, die zich van Tañjāvūr uit geleidelijk in oostelijke richting hebben kunnen verbreiden. Op grond van het toenemend aantal nissen — en dus van godenbeelden — mag men aannemen dat er tegelijkertijd religieuze ontwikkelingen plaatsvonden. De behoefte aan nissen werd op den duur namelijk zo dringend, dat men er toe overging muren van oudere tempels te beschadigen en daarin gaten te hakke om de recentere beelden ten toon te kunnen stellen. Het letterlijke toepunt van deze manifeste behoefte is de Rājarājeśvara in Tañjāvūr die in iedere muur vele tientallen nissen telt.

De tot nu toe geschetste religieuze en architecturale ontwikkelingen speelden zich voornamelijk af in het eigenlijke Kāverī gebied. De noordelijke streken waren door het ineensstorten van de macht der Pallavas in een cultureel vacuum geraakt. Deze situatie lijkt door de architectuur te worden geïllustreerd. In het noorden werden de eerste tekenen van Coḷa invloed namelijk pas merkbaar vijftig jaar nadat de eerste complete Coḷa tempel was ontworpen. Zo werden

... in South Arcot — gelegen tussen de Palar streek en de Kāverī delta — slechts enkele ekatalas en dvitalas gebouwd volgens het Coḷa model. Over het meeste aantal nissen bleef echter nog lang onzekerheid bestaan. Hieraan kwam een eind tegen 1000 A.D. In het eigenlijke Pallava gebied zelf was in de tiende eeuw geen sprake van tempelbouw en dus ook niet van Coḷa invloeden daarop.

De doordachte wijze waarop aanvankelijk met grondplan, hoogte en aantal pilasters geëxperimenteerd werd lijkt er op te duiden dat er — zeker gedurende de jaren 870-900 A.D. — een atelier bestond dat verantwoordelijk was voor alle tiendertijd ontworpen heiligdommen langs de Kāverī. In scherpe tegenstelling tot deze gevarieerde groep monumenten staan de koyils die tussen 969-985 A.D. werden ontworpen. Zij vertonen een zeer uniform beeld. Dit kan echter ook geïnterpreteerd worden als een aanwijzing voor het bestaan van een atelier. Verder veronderstellen wij op grond van het na 985 A.D. sterk verminderende aantal nieuwe tempels, dat dit tweede atelier in zijn geheel werd overgebracht naar Tañjāvūr. Daar was het verantwoordelijk voor het verrijzen van de Rājaraṣvara in ongeveer twintig jaar. Dit zou kunnen verklaren waarom elders in de delta slechts kleine kapellen werden gebouwd die niet langer de onderlinge samenhang vertonen welke de zojuist genoemde groep zo sterk kenmerkt.

In het vierde hoofdstuk zijn wij uitgegaan van de gebieden en perioden die zich in het vorige hoofdstuk leken uit te kristalliseren. De veronderstelling dat er inderdaad twee ateliers hebben bestaan, nl. een ouder onder Āditya I en een later dat onder supervisie stond van Śembyan Mahādevī — resp. gemalin, moeder en tante van drie opeenvolgende Coḷa vorsten — blijkt te worden bevestigd bij bestudering van alle distributiepatronen die in dit hoofdstuk aan de orde komen. Er is namelijk een opmerkelijke strikte variatie in de diverse tempelonderdelen, die bovendien een sterke samenhang vertoont. Men krijgt de indruk dat de sthāpatis (= bouwmeesters) nadrukkelijk hebben willen voorkomen dat de monumenten in decoratief opzicht op elkaar zouden gelijken. Dit zou er op kunnen wijzen dat er een gedetailleerde registratie bestond van alle in ruim een eeuw gebouwde koyils.

Hierna worden de "decoratieve" onderdelen t.w. de basis, de pilaster, het dak en het korbeel, achtereenvolgens aan de orde gesteld.

De basis is een complex geheel bestaande uit drie elementen, nl. de upāna (= platform), de adhiṣṭhāna (= plint) opgebouwd uit ten minste drie lagen, en de vari (= sierrand langs de muur). Van deze drie is de upāna altijd een afzonderlijk onderdeel; de adhiṣṭhāna daarentegen dient in veel gevallen slechts als decoratie van de onderste blokken waarmee de tempelmuren zijn opgetrokken.



De verspreiding van de adhiṣṭhānavarianten is chaotisch. De vari kent geen varianten en levert derhalve geen belangwekkend kaartbeeld op. De inventarisatie van de diverse typen upāna is niet compleet. Het platform wordt namelijk vaak aan het oog onttrokken door later aangebracht plaveisel. Aangezien geen van deze drie belangrijke tempelonderdelen duidelijk regionaal gebonden is, kunnen zij niet zonder meer als dateringscriterium dienen. Wanneer men hun spreiding echter vergelijkt met het in het derde hoofdstuk verkregen kaartbeeld, wordt wel duidelijk dat in elke fase en bijgevolg in elk deelgebied (langs de Kāverī) één of meer adhiṣṭhānatypen aan het Coḷa idioom werden toegevoegd. Het is zelfs waarschijnlijk dat men — toen de mogelijkheden in het combineren van plintonderdelen uitgeput leken — in de voorlaatste fase de nadruk heeft verlegd naar het platform. Hieraan werd namelijk een, misplaatste kapota (= kroonlijst) toegevoegd.

De Coḷa vari is uitgedacht in het kleine kerngebied rond Tañjāvūr. Alle vroege tempels vertonen een telkens weer andere versie en plaatsing zowel langs de muren van de eerste verdieping als langs de hāra (= snoer van minikaryils boven een kroonlijst). Het monument in Kumbakonam (886 A.D.) lijkt wel dit aspect betreft de experimentele fase af te sluiten. Nadien werd slechts één soort vari aangebracht, die door alle nissen onderbroken wordt. Deze variant en het type nis dat de vari onderbreekt werden na 950 A.D. zowel in South Arcot als in het Palar gebied gebruikelijk.

De verhoogde upāna — een type platform dat bekend was van Pallava tempels — duikt opnieuw op rond 990-1000 A.D. Opvallend is overigens dat dit in alle districten gelijktijdig gebeurt.

De spreiding van de vierkante kāl (= pilaster) is sterk regionaal gebonden. Hij beperkt zich tot het Tiruchirappalli District en de Palar streek. De Coḷa-maṇḍalam wordt daarentegen gekenmerkt door een grote verscheidenheid aan combinaties van vier typen pilaster, nl. de ronde, de vierkante, de achthoekige en de veelhoekige kāl. Deze combinaties vormen associaties samen met additionele pilasterdecoraties zoals lotusknoppen, idaḷ (= lotusbloembladeren aan de kant = echinus), nāṭṭya-peṇs (= danseressen) op de palagai (= abacus) en kleine pilasters in het verlengde van de pilasters onder de vari en de kaṇṭha. Op grond van de variatie zijn de producten van beide ateliers duidelijk herkenbaar als twee afzonderlijke groepen.

De śikhara is een koepelachtige doch gestapelde dakconstructie van granieten blokken die als deksteen een omgekeerde lotus heeft waarop tijdens het inwijdingsceremonieel een stūpī (= pot) wordt geplaatst. Deze "koepel" kan



rond, vierkant of achthoekig zijn. Geen dezer grondvormen is aan een bepaalde regio gebonden. Het profiel is onveranderlijk klokvormig. De ontwikkeling van de grīvānis (= nis in de "hals" van de śikhara) vertoont een evolutionaire tendens. Aanvankelijk was deze nis niet meer dan een bouwsteen waarop — overigens zeer bekwaam — Śiva, Viṣṇu, Brahmā of Ūmā werden afgebeeld. De overgang via een nicham waarin een dergelijke steen geplaatst kon worden naar een echte nis, geflankeerd door pilasters en afgedekt door een balk, is op de monumenten in het Tiruchirappalli District waar te nemen. Op grond van deze ontwikkeling moet ons inziens een groot aantal tempels aanzienlijk later gedateerd worden dan tot nu toe gebruikelijk was. Deze opvatting wordt bevestigd door de vari, die op deze wayils reeds in de latere standaardversie langs de hāra loopt. In de centrale en oostelijke delen van de delta zijn de meeste śikharas helaas onherkenbaar òf door nieuwbouw òf door pleisterwerk.

De podigai (= korbeel) wordt tot de bouw van de Rājarājeśvara te Tañjāvūr in twee typen uitgevoerd. Beide varianten vertonen trekken van de oudere Cāḷukya en Pallava korbelen. Rond de hoofdstad treft men van beide typen mengvormen aan waaronder die welke vervolgens de stijl hebben bepaald. Na de introductie van een later type te Tañjāvūr ca 1000 A.D. werden de oudere varianten nog herhaaldelijk toegepast, althans langs de Kāverī. In het Palar gebied daarentegen werd de nieuwe vorm onmiddellijk overgenomen.

Een van de belangrijkste conclusies van ons onderzoek betreft de vaststelling van de meest essentiële structurele en decoratieve kenmerken van de Coḷa architectuur tussen 850-1044 A.D. De drie voornaamste hiervan zijn in de eerste plaats de op den duur geslaagde vormgeving van de nis, die zowel in de Cāḷukya als in de Pallava bouwkunst gebrekkig was en in de Muttairaiyar/Pāṇḍya stijl zelfs niet bestond. In de tweede plaats munt de Coḷa architectuur uit door een consequent toepassen van een verrassend goede verhouding tussen grondplan, hoogte en aantal pilasters. In de derde plaats vertoont zij een strikte variatie in de combinatie van basis- en pilastertypen.

Een tweede belangrijk resultaat van onze studie is de conclusie dat de Coḷa stijl zich tussen 870-1044 ontwikkelde via zes duidelijk te onderscheiden stadia. Deze werden voorafgegaan door een niet scherp af te grenzen periode waarin de Muttairaiyars een prototype van de Coḷa tempel ontwierpen.

Een derde uitkomst van ons onderzoek is de vaststelling dat de Coḷa architectuur gedurende de eerste twee eeuwen van haar bestaan op de bouwstijlen der omringende districten slechts geringe invloed heeft uitgeoefend.

Zij is, vertraagd, merkbaar in South Arcot, maar nauwelijks in het oude Pallava gebied. Daar ontstond namelijk na 1000 A.D. een regionale stijl die geënt was op zowel de Coġa als de Pallava architectuur. De Coġa bijdrage in deze regionale variant beperkte zich tot de vormgeving van de nis en de vari.

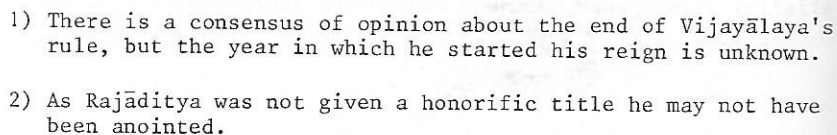
Het probleem van de caesuur tussen de Vroege en de Middel Coġa periode, tenslotte, kon ook worden opgelost. Men kan de Vroege Coġa stijl op grond van verschillende criteria van de daaraan voorafgaande en de daarop volgende fasen afbakenen. Wanneer men als voornaamste onderscheid de aanwezigheid van een volledig uitgevoerde nis hanteert, begint deze stijl ca 870 A.D. In dit verband moet echter wel worden opgemerkt dat ons inziens de sthāpatis van het nismonument te Nārttāmalai de kern waren van de school van Āditya I. De overgang van de Vroege naar de Middel Coġa periode kan niet worden vastgesteld op basis van dit criterium omdat de vormgeving van de nissen pas rond 1070 A.D., d.w.z. gedurende de Late Coġa fase, sterk gewijzigd werd. Wanneer men zich echter baseert op de afwezigheid van experimentele vormen ten aanzien van grondplan, basis en pilastercombinaties, dan dient de caesuur tussen de Vroege en de Middel Coġa periode bij de troonsbestijging van Rājarāja I te worden gelegd. De Middel Coġa architectuur kenmerkte zich in dit geval door een sterke reductie van de decoratieve variatiemogelijkheden en het terugvallen tot een stadium waarin slechts oude vormen — overigens wederom zeer systematisch — opnieuw werden ge-arrangeerd. Tijdens deze opmerkelijke tussenperiode werd voornamelijk gebouwd in Tañjāvūr en in Gaṅgaikōṇḍacoġapuram. De "pyramiden" die daar verrezen onder de handen van de sthāpatis van Śembyan Mahādevī's atelier, droegen ondanks hun omvang niet bij tot een vernieuwing van de Coġa bouworde. Elke volgende verdieping is namelijk een verkleinde weergave van de vorige — een systeem waarvan een Vroeg Coġa model ten grondslag lag.

Het verschil tussen de Vroege en de Middel Coġa architectuur zou als volgt kunnen worden geformuleerd. Terwijl de Vroege Coġa bouwkunst een strikte variatie in tempelonderdelen en een ruimtelijke ontwikkeling vertoont, wordt de Middel Coġa architectuur gekenmerkt door een nauwgezette imitatie van ge-accepteerde Vroege Coġa vormen en door "een streven naar omhoog".



## Appendices

## Genealogy of the Early Colas



## Appendix 2

Alphabetical list of places in which Early Coḷa temples are located. Districts are indicated between brackets: Tj=Tañjāvūr; N.A.=North Arcot; S.A.=South Arcot; Tri=Tiruchirappalli and Ch.=Chingleput. In the spelling we have followed the system used by Rangacharya. The names of the koyils are given in Sanskrit.

- Ādurai (Tj), Āpatsahāyeśvara  
 Āmbakkam (Tri), Kailāsanātha  
 Ālūr (Tri), Pañcanādīśvara  
     Paśupatiśvara  
 Āngūr (Tj), Agastyeśvara  
 Andanallūr (Tri), Vaṭatīrthanātha  
 Āhūr (S.A.), Śrīmūlanātha  
 Brahmadēśam (S.A.), Brahmeśvara  
     Pātāleśvara  
 Brahmadēśam (N.A.), Candramoulīśvara  
 Chittūr (Tri), Agnīśvara  
 Chōlapuram (Tj), Agnīśvara  
 Dadapuram (S.A.), Kundavai Vinnagar Alvar  
     Iravikulamanikka Tīśvara  
 Enadi (Tri), Śiva Koyil  
 Erumbūr (S.A.), Kadambavaneśvara  
 Eśālem (S.A.), Rāmanātheśvara  
 Gandaradittam (Tri), Sokkanātha Koyil  
 Gaṅgaikoṇḍaḷapuram (Tri), Amman shrine or Uttara Kailāsa  
 Goburapatti (Tri), Amaleśvara  
 Govīndaputtūr (Tj), Gaṅgājaṭādhara koyil  
 Grāmam (S.A.), Śivalokanātha  
 Jambai (S.A.), Jambunātha  
 Kaḷiyapaṭṭi (Tri), Śiva Koyil  
 Kāmarasavalli (Tri), Karkoteśvara  
 Kāñcī (Ch.)<sup>1</sup> Śokkeśvara  
     Tirucacchimayana shrine in the compound of the  
     Ekambaranātha  
 Kaṇḍiyūr (Tj), see Tirukkāṇḍiyūr  
 Kannanūr (Tri), Bālasubrahmaṇya Koyil or Subrahmaṇyeśvara  
 Karandai (Tj), Vasītteśvara  
 Karuṭṭaṭṭāṅguḍi see Karandai



Kāvanṭandālam ( Ch.), Coḷeśvara  
 Kilaiyūr (Tri), Agastyeśvara  
     Coḷeśvara  
 Kīlappaḷuvūr (Tri), Vatamūleśvara or Tiru Alandurai Mahādeva  
 Kīliyanūr (S.A.), Agastyeśvarasvāmin  
 Kṭlūr (S.A.), Vīraṭṭaneśvara  
 Kṭranūr (Tj), Śivalokanātha  
 Kiranūr (Tri), Uttamadanīśvara  
 Koḍumbālūr (Tri), Mucukundeśvara  
     Mūvar Koyil  
 Kōnērirājapuram (Tj), Umāmaheśvara  
 Kōvilāḍi (Tj), Divyajñāneśvara  
 Kōyildēvarāyanpēṭṭai (Tj), Matsyapūrīśvara  
 Kuhūr (Tj), Āmravaneśvara  
 Kūḷambandal (N.A.), Gaṅgaikoṇḍacoḷeśvara  
 Kumāravayalūr (Tri), Agnīśvara  
 Kumbhakōṇam (Tj)<sup>2</sup>, Nāgeśvara  
 Kuram ( Ch.), Ādikeśvara Perumal  
 Kuttālam (Tj), Uktavedeśvara  
 Kuvam ( Ch.), Tripurāntakeśvara  
 Lalgudi (Tri), Saptarṣīśvara  
 Madagadipattu (S.A.), Tirukaṇḍīśvara  
 Mahārājapuram (Tj), Śiva Koyil  
 (Māmallapuram (Ch),<sup>3</sup>) Arjuna Ratha,  
     (Pallava, prototype of Coḷa temples)  
 Manampādi (Tj), Śiva Koyil  
 Mēlappaḷuvūr (Tri), Sundareśvara, Amman shrine  
 Melatiruppūndurutti (Tj), Puṣpavaneśvara  
 Mēlpādi (N.A.), Coḷeśvara or Aruñjiyeśvara  
     Somanātheśvara  
 Nāgapattinam (Tj), Kāronasvāmin  
 Nangavaram (Tri), Sundareśvara  
 Nārttāmalai (Tri), Vijayālaya Coḷeśvara  
     Melakkadambūr  
 Nemam (Tj), Airāvateśvara  
 Niyamam, see Nemam  
 Nirpalani (Tri), Valarmadeśvara  
 Panangudi (Tri), Agastyeśvara

Parameśvaramaṅgalam (Ch), Senpakeśvara  
 Pateśvaram (Tj), Sattivaneśvara  
 Pennadam (S.A.), Pralayakāleśvara  
 Pēraṅgiyūr (S.A.), Śiva Koyil  
 Perungudi (Tri), Agastyeśvara  
 Puḍūr (near Brahmadeśam N.A.), Śiva Koyil  
 Puḷḷamaṅgai (Tj), Brahmapurīśvara  
 Puṇjai (Tj), Naltunai Tīśvara  
 Pūṇanātha Kōyil (Tj), Pañcavan Mādevī Tīśvara  
 Sembyan Mahādevī (Tj), Kailāsanātha  
 Sendalai (Tj), Sundareśvara  
 Siddhalingamaḍam (S.A.), Vyāghrapādeśvara  
 Sōmūr (Tri), Śomeśvara  
 Śrīnivāsanallūr (tri), Koranganātha  
 Takkolam (N.A.), Jalanātheśvara  
 Tanjāvūr (Tj), Rājarājeśvara or Br̥hadīśvara  
 Tennēri (Ch.), Kaṇḍalīśvara  
 Tillasthānam (Tj) <sup>4)</sup> Ghr̥ta-sthāneśvara  
 Tiṇḍivanam (S.A.), Tirutiṇḍīśvara  
 Tiruchchātturai (Tj), Ōdanavaneśvara  
 Tiruchchendurai (Tri), Candraśekhara Koyil  
 Tiruchcheṅgāṭṭaṅḍi (Tj), Uttarapatīśvara  
 Tiruchchennampūṇḍi (Tj), Śaḍaiyar koyil  
 Tirukkaḍaiyūr (Tj), Amṛtaghaṭeśvara  
 Tirukkaliṭṭattai (Tj), Vedapurīśvara  
 Tirukkaṇḍiyūr (Tj), Vīraṭṭaneśvara  
 Tirukkaḷavūr (Tj), Madhuvaneśvara  
 Tirukkattalai (Tri), Sundareśvara  
 Tirukkāṭṭuppaḷḷi (Tj), Agnīśvara  
 Tirukkodikkaḷ (Tj), Tirukkoteśvara  
 Tirukkoḷḷikkāḍu (Tj), Agnīśvara  
 Tirukkuhukavūr (Tj), Velladai Tīśvara  
 Tirumalavāḍi (Tj), Vaidyanāthasvāmin  
 Tirumaliśai (Ch), Varadarāja Perumal  
 Tirumaṇcheri (Tj), Udvāhanāthasvāmin  
 Tirumaṅgalam (Tri), Sāmavedeśvara  
 Tirumayānam (Tj), Jñānaparameśvara

Tirumiyachchūr (Tj), Mihirāruneśvara  
 Tirumullaivāyil (Ch), Śrī Masilamanīśvara or Ākalanka Ratneśvara  
 Tirunāgeśvaram (Tj), Nāgeśvara  
 Tirunāmanallūr (S.A.), Bhaktajñāneśvara  
 Tirunaṇṇaiyūr (Tj), Siddhanātheśvara  
 Tiruppachchiyūr (N.A.), Vācheśvara  
 Tiruppalanam(Tj),<sup>5)</sup> Āpatsahāyeśvara  
 Tiruppalturai (Tri), Ādimoulīśvara  
 Tiruppugalūr (Tj), Agnipurīśvara  
 Tiruppūr (Tri), Śiva Koyil  
 Tiruppurambyam (Tj), Sākṣīśvara  
 Tiruttāni (N.A.), Vīraṭṭaneśvara  
 Tiruvadandai (Ch), Varāha Perumal  
 Tiruvādūtūrai (Tj), Gomukteśvara  
 Tiruvaiaṇṇū (Tj), Pañcanādīśvara  
     Uttara Kailāsa  
     Ten Kailāsa  
 Tiruvakkarai (S.A.), Candramoulīśvara  
 Tiruvalaṅguḷi (Tj), Śrī-Kapardīśvara  
     Kṣetrapāladeva  
 Tiruvallam (N.A.), Bilvanātheśvara  
 Tiruvāmattūr (S.A.), Abhirāmeśvara  
 Tiruvāndārkōyil (S.A.), Pañcanādīśvara  
 Tiruvanmiyūr (Ch), Vedapurīśvara, Amman shrine  
 Tiruvārūr (Tj), Acaleśvara  
     Tyāgarājaśvara  
     Wanyaganātha  
 Tiruvēdikkudi (Tj), Vedapurīśvara  
 Tiruvenkāḍū (Tj), Śvetārāṇyeśvara  
 Tiruverumbūr (Tri), Pipīleśvara  
 Tiruviḍaimarudūr (Tj), Mahāliṅgasvāmin  
 Tiruviḷakkudi (Tj), Maṇavaḷeśvara  
 Tiruvirāmeśvaram (Tj), Rāmanātheśvara  
 Tiruviśalūr (Tj), Śivayoganāthasvāmin  
 Tiruvorriyūr (Ch), Ādipurīśvara  
 Tribhuvana (S.A.), Varadarāja Perumal  
 Tudaiyūr (Tri), Viṣamaṅgaleśvara

Kāñcīyārgudi (S.A.), Anāntheśvarasvāmin  
 Kāñcīmallūr (Ch.), Sundara Varadarāja Perumal, Kailāsanātha (Pallava)  
 Kedareśvara  
 Kōṭṭakkōṇḍān Tirumalai (Tri), Ujjīvanātha  
 Kōṭṭaranyam (Tj), Vedāranyēśvara  
 Kōṭṭachchēri (Ch), Dandipāṇīśvara  
 Kōṭṭakkam (N.A.) Śiva Koyil in Poinee Reservoir  
 Kōṭṭālūr (Tri), Bhūmīśvara  
 Kōṭṭālūr (Tri), Mārgasahāyēśvara  
 Kōṭṭadhāchalam (S.A.), Vṛddhagirīśvara

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1. Rangacharya used the spelling Conjeeveram, but we prefer the old name Kāñcī.
2. Kumbhakoṇam is a large town better known as Kumbakonam (spelt without h).
3. Rangacharya used the spelling Māvalivaram or Māhabalipuram, but we have used the old name Māmallapuram.
4. Tillasthānam is usually written Tillaisthānam, a spelling we prefer.
5. Tiruppayanam is usually spelt Tiruppalanam which is applied by us.

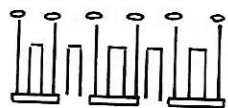
### Appendix 3

Examples of horizontal and vertical composition of the first tala in Pallava, Gaṅga/Bāṇa and Cāḷukya architecture.

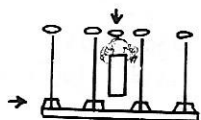
Fig. a-1. Development of Pallava niche; various early, complex ground-plans, early occurrence of fully developed pañjara (3), lotus base of pilaster (2); late appearance of kind of lintel above niche (6). Ground-plans 1 t/m 4 applied by Coḷas.

Fig. a-2. Hybrid character of Gaṅga style in one group of Jain Bastis; archaic cut-out niches + vari (a) interrupted by niche; one-pilaster-pañjara (2), uninterrupted vari (1+2); complex ground-plans of which (c) copied from Coḷas (Pulḷamaṅgai)

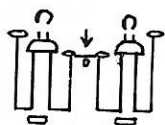
#### PALLAVA



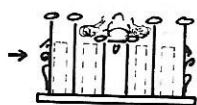
Arjuna Ratha (1)  
A.D. 630-668



Draupadī Ratha (2)  
A.D. 630-668

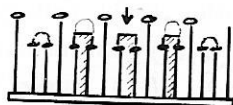


Vadaiyankuṭṭai Ratha (3)  
A.D. 672-700



Piravātaneśvara (4)  
A.D. 700-728

Kailāsanātha (5)  
(Tiruppattūr)  
A.D. 732-796



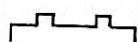
Kailāsanātha (6)  
(Uttaramallūr)  
A.D. 796-846



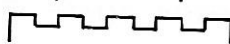
(1)



(2) (4)

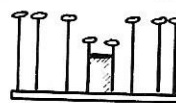
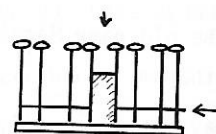


(3)



(5) (6)

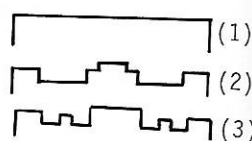
#### GAṆGA / BĀṆA (1-3) (4-5)



Kambadatta  
A.D. ?



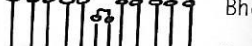
Narasama  
A.D. ?



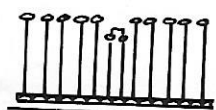
(1)



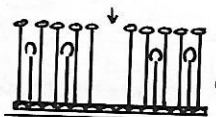
(2)



(3)



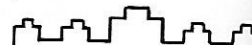
Bhoga  
late 9th



Arunācala  
early 10th



(4)

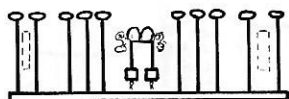


(5)

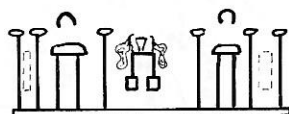


Fig. a-3. Picture-frame niches in Cālukya architecture; kapota + kind of toraṇa above windows and holes.

C Ā L U K Y A (WEST & EAST)  
(1-2) (3)

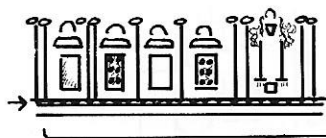


Nakkalagudi (1)  
(Biccavolu)  
A.D. 850-950

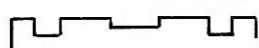


Goliṅgeśvara (2)  
(Biccavolu)  
A.D. 950-1050

1050



Virūpākṣa (3)  
(Paṭṭadakal)  
ca. A.D. 750



(1)



(2)



(3)

Complex ground-plan (3) copied by architects of the Rājarājeśvara at Tañjāvūr, where it was applied to the platform only. Note the kapotas which are not supported by pilasters (3) in contrast to Middle Coḷa practice, when they rest on two podigais above half-size niche pilasters (cf. P l. 19b).



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#### Appendix 4

Classification of the Pāṇḍya, Muttaraiyar and Irukkuveḷ characteristics according to Soundara Rajan.

A R C H E T Y P E S		
I	II	III
<p>Ia. PĀṆḌYA (ca. A.D. 860)</p> <p>small stone aṣṭaparivārā square śikhara</p> <p>?</p> <p><i>examples at:</i> <i>Panangudi,</i> <i>Kaḷiyapattī,</i> <i>Viśālūr,</i> <i>Tiruppūr,</i> <i>Enadi.</i></p>	<p>II. MUTTARAIYAR<sup>1)</sup> (ca. A.D. 860-90)</p> <p>small stone aṣṭaparivārā round/octagonal śikhara adhiṣṭhāna: upāna, jagatī, tripaṭṭa kumu- da, kaṇṭha, paṭṭikā, prati, vedi(vari).</p> <p><i>examples at:</i> <i>Virālūr,</i> <i>Karmanūr,</i> <i>(Mela) Tiruppūndurutti.</i></p>	<p>IIIa. MUTTARAIYAR (ca. A.D. 860)</p> <p>ekatala stone/brick - round/square śikhara</p> <p>adhiṣṭhāna: upāna, jagatī, vṛtta kumu- da, vyālivari.</p> <p><i>example at:</i> <i>Kiranūr.</i></p>
<p>Ib. MUTTARAIYAR (ca. A.D. 875)</p> <p>ekatala stone parivārā ? śikhara ?</p> <p><i>examples at:</i> <i>Kilattanaiyam,</i> <i>Tiruchchatturai,</i> <i>Tiruchchennampūṇḍi.</i></p>		<p>IIb. IRUKKUVEL<sup>2)</sup> (ca. A.D. 905)</p> <p>ekatala stone/brick aṣṭaparivārā round śikhara adhiṣṭhāna: upāna, padma, vṛtta kumu- da, vyālivari, kaṇṭha, prati. praṇāla in upāna.</p> <p><i>examples at:</i> <i>Lalḡudi,</i> <i>Valikandapuram</i> <i>Kuhūr.</i></p>

1) Muttaraiyar is spelt Muttarayar by Soundara Rajan.

2) Coḷa temples built according to the Irukkuveḷ idiom, except for their round śikhara.

(for archetype IV see following page)

# A R C H E T Y P E IV

## IVa. MUTTARAIYAR (ca. A.D. 845-60)

dvi/tritalas  
stone  
parivārā  
round śikhara  
adhiṣṭhāna: see II

examples at:

*Nangavaram,*

*Nārttāmālai (Vijayālaya  
Coḷeśvara).*

## IVd. IRUKKUVEL (ca. A.D. 875)

tritala  
stone  
parivārā  
square śikhara  
adhiṣṭhāna: see IIb  
praṇāla in kaṇṭha

examples at:

*Koḍumbālūr (Mūvar Koyil),  
Kilaiyūr (Agastyeśvara).*

## IVg. IRUKKUVEL-MUTTARAIYAR (ca. A.D. 890)

dvitala  
stone/brick  
-  
square śikhara  
adhiṣṭhāna: see IIIa +  
kaṇṭha, prati.

example at:

*Śrīnivāsanallūr.*

## IVb. MUTTARAIYAR (ca. A.D. 860-90)

dvitala  
stone/brick  
aṣṭaparivārā<sup>3)</sup>  
round śikhara  
adhiṣṭhāna: see II

examples at:

*Śendalai,*

*Nemam,*

*Tiruvaiyārū.*

## IVe. IRUKKUVEL<sup>4)</sup> (ca. A.D. 905)

dvitala  
stone  
-  
round śikhara  
adhiṣṭhāna: see IIb  
-

example at:

*Kilaiyūr (Coḷeśvara).*

## IVc. CĀLUKYA - PĀNDYA (ca. A.D. 875-90)

dvitala  
?  
-  
square śikhara  
adhiṣṭhāna: see II

examples at:

*Tillaiśthānam,*

*Kumbakonam,*

*Tiruchchātturai,*

*Tiruchchennampūdi.*

## IVf. IRUKKUVEL (ca. A.D. 890-950)

dvitala  
stone  
aṣṭaparivārā  
square śikhara  
adhiṣṭhāna: see II  
praṇāla in paṭṭikā

examples at:

*Tirukkaṭṭalai,*

*Tiruchchendurai,*

*Aṇḍanallūr,*

*Koḍumbālūr (Mucukun-  
deśvara).*

3) Rafters instead of vyālis.

4) Coḷa temple built according to the Irukkuvel  
idiom, except for its round śikhara.











































































For a discussion of the iconographic character-  
istics of the "Pāṇḍya", "Muttarayar" and "Iruk-  
kuvel" style, see appendix 7, pp. 378-79.



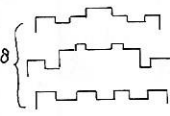

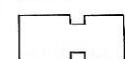












# Appendix 5

Code-list of the variations in temple parts.

coordinates  
W-E compu-  
ter map.  
(aspect =  
map no.)

coordinates W-E compu- ter map. (aspect = map no.)	District (aspect 1)	aspect 6 Kāṇṭha 1  Pal/Cāl	aspect 11 decoration kāl- base 1  lotus base 2  goose 3  pond
aspect 2	Temple Base UPĀNA/UPATĪHA	2 	aspect 12 kalaśa 1  Pal
	1 	3  (Cāl) beneath all the kāls	2 
	2  Pal.	4  only under corner kāl	3 
	3 	5  as 4 but incidental	4  = 2 but not decorated
	4 	6  Pān.	5  Pal Cāl
	5 	7  Cāl.	aspect 13 padma-bandha 1  lotus decorated 2 plain
	ADHIṢṬHĀNA Jagatī	8  Pān.	aspect 14 mālāsthāna 1 
aspect 3	1  Cāl.	aspect 7 pattikā 1  Pal.	2 
	2  Cāl.	2 	3 
	3 	3  Pān. Bāna	4 
	4 	4  Pal.	5 
	5 	5  Cāl.	6  4 + 5
	6  Cāl/Pal.	6  3 + 5	7  3 + 4
aspect 4	kumuda	7 	8  3 + 5
aspect 5 idem 4 in case two types are applied	1  Pal/Cāl	8  3 + 5	9 
	2  Cāl/Bāna	Temple Wall	10 
	3  Pal	aspect 8 wall kāṇṭha see aspect 6	11 
	4 	aspect 9 vari	12 
	5  Cāl.	1  continuous	13 
	6  Cāl.	2  continuous	14 
	7  Cāl.	3  = 1 only under devakōṣṭhas	15 
		4  = 1 except under devakōṣṭhas	16  4 + 1, 2, 3
		5  = 2 except under devakōṣṭhas	17 
		KĀL cross-section	18 
		1 	19 
		2 	20 
		3 	21 
		4 	22 

aspect 18	kumbha	aspect 22	nāṭṭiya-paṇ vyaḷi	aspect 27	kūdu - foliage
1		1		1	
2		2		2	
3			Pal.	3	1 + 2
4	shape-less		Pal.	4	
5	= 1 + decoration			5	
6	= 2 + "			6	
7	= 3 + "				
aspect 19	podigai	aspect 23	Prastara UTTIRA	aspect 28	kūdu - inside
1		1		1	empty
	Pal. E. Cāl.	2		2	
2		3		3	
	Pal.	4		4	2 + 3
3		5		5	
	Pal.	6		6	
4					
5					
	Bāna Mutt.				
6					
7					
aspect 20	podigai decoration	aspect 24	KAPOTA profile + decoration	aspect 29	Makaratoraṇa makaras
1		1		1	
		2		2	
2		3		3	
		4		4	= 3 not decorated:
3		5		5	= 2 not decorated:
		6		6	
4					
5					
6					
7					
aspect 21		aspect 25	kūdu - curve	aspect 30	kapota
1		1		1	above main niche
		2		2	" lateral niche
2		3		3	" window
		4		4	makaratoraṇa adorning kapota
3					
4					
5					
6					
7					
aspect 22		aspect 26	kūdu - top	aspect 31	crescent
1		1		1	mythological motif
		2		2	rosette
2		3			
		4			
3					
4					
5					
6					
7					
aspect 23				aspect 32	Lintel
1				1	
				2	
2				3	
3					
4					
5					
6					
7					

Vimāna		aspect 39 (cont.)			
aspect 33	no. of kāls		8 {  E. Cal.	aspect 49	Iconography Sculpture to decoration
	1 4 kāls				1 Dakṣiṇārṇava
	2 6 "				2 all vimānas
	3 >6 "				3 here and there
aspect 34	no. of niches	aspect 40	Layout temple		4 all deities
	1 one/wall			aspect 50	idem in wall
	2 two/ "				1 one row
	3 three/ "				2 two rows
	4 three in elephant's back				3 three rows
	5 five "			aspect 51	Deva in Kṛṣṇa
	6 >three/wall				1 Brahmin
aspect 35	no. of "mock" niches	aspect 41	+ mukha māṇḍapa	aspect 52	Deva in Śiva
	see aspect 34		1 contemporaneous		1 Dakṣiṇārṇava
aspect 36	no. of tāla's	aspect 42	ardhamāṇḍapa with hāra	aspect 53	Deva in Kṛṣṇa
	1 ekatāla		1 present		1 Viṣṇu
	2 dvitāla				2 Lingadev
	3 tritāla	aspect 43	no. of niches in the ardhamāṇḍapa		3 Ardhanārī
	4 caturtāla		see aspect 34		4 other deity
	5 >four tālas	aspect 44	no. of cut-out niches in vimāna	aspect 54	Deva in Śiva
aspect 37	Śikhara		1 two or three		1 Gopurā
	1 ○ Vesara		2 four	aspect 55	Deva in Śiva
	2 □ Nāgara		3 >four		1 N. niche arched
	3 C		4 only one		1 Durgā
	4 ○ Drāviḍa	aspect 45	no. of cut-out niches in ardhamāṇḍapa		2 Nāgarī
	5  Cal.		1 one	aspect 56/59	Deva rose with
	6 		2 four		niche E.W. of
aspect 38	Śikhara: profile		3 one		resp. the central
	1  Cal.		4 two } with pilasters = blind niche		S. and N. niches
	2  Pal.		5 three		in ardhamāṇḍapa
	3  Pañ Bāṇas	aspect 46	False antarāla decoration		1 Bhikṣu
			1 with niche		2 Ardhanārī
			2 with lozenges		3 Gaṇeśdev
			3 with window		4 Gopurā
aspect 39	Vimāna Layout		4 1+3		5 Agastya
	1 		5 pañjara		6 other deity
	2 	aspect 47	kumbhapañjara		7 Nāgarī
	3 		full-fledged windows with grills	aspect 60	Pañjara
	4 		1 present Cal.		its high
	5 	aspect 48	grīvā platform		1 above kāṣṭha
	6 		1 karmā kuṭīs		2 under kāṣṭha
	7 		2 sālās		3 = 1/2 of total
					4 kumbha - pañjara








aspect 61

position pañjara  
base

- 1 on vari  
vimāna
- 2 on individual  
adhiṣṭhāna






aspect 62

top of pañjara

- 1 
- 2 
- 3 
- 4 
- 5 2 + 3
- 6 
- 7 
- 8 

aspect 63

Vyāli frieze  
above kapota

- 1 
- 2 
- 3 
- 4 
- 5 

aspect 64

Corner vyāli's: makaras

- 1 
- 2 
- 3 
- 4 
- 5 

## Appendix 6

The development of the makaratoraṇa and the kūdu.

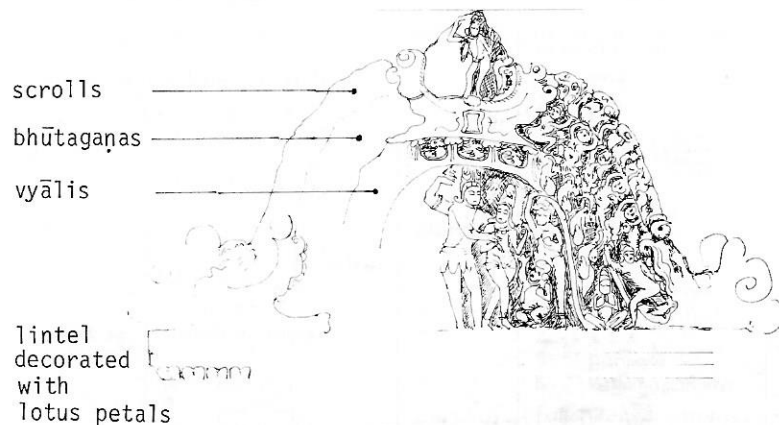
These ornamental aspects are not dealt with separately because in many cases they have been spoiled by plaster or have even disappeared completely. Maps showing the distribution of the different shapes occurring between A.D. 850-1044 are, therefore, unsuitable, for there are too many points missing in the distribution pattern of their variants which makes it impossible to deduce a trustworthy chronology of the monuments on which they occur. We shall, nevertheless, demonstrate that some conclusions can be drawn with regard to the development of both motifs.

### 1. The development of the makaratoraṇa during the Early Cola period.

The development of the makaratoraṇa can be traced on the walls of the Sapta Śalinās. These seven buildings form a group characterized by experimental designs in all other respects.

The idea of crowning a devakoṣṭha with a makara is as old as the concept of a garland which seems to be held by two of these mythological animals. New is the manner in which the makaras are placed on the palagais above the half-round pilasters. Another novel feature are the bhūtagaṇas or vyālis which—instead of flowers—seem to emerge from the mouths of the makaras (Fig. a).

Fig. a. Position of the various motifs in an Early Coḷa makaratoraṇa.

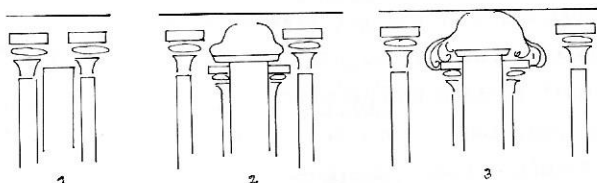


The simple, or indented toraṇa of the Pallavas and the Cāḷukyas respectively, was transformed into an arch swarming with animals and dwarfs. On the inside garlands were added the loops of which frame nāṭṭya-peṇs or musicians. The tor



of the arch shows antithetic makaras (cf. Figs. 6 and 9, p. 44, and Pls. 3, 6, and 9). The space framed by their curled upper lips is filled with a kind of medallion usually depicting a deity. All this remains between the normal wall pilasters and between the *uttira* and the lintel above the niche (Fig. b-3). If there is not enough room the *makaratoraṇa* is somehow squeezed into the available space (Fig. b-2) or altogether absent (Fig. b-1).













Fig. b. The position of the *makaratoraṇa* between pilasters and *uttira*.



This shortage of space can be noticed on the older temples, for instance at Tiruchchātturai, Tiruvaiyāṇū (Fig. c) and Nangavaram (Fig. d). Later shrines generally provide sufficient room for the *makaratoraṇa* (cf. Pls. 30, 31a and 49).

The architects of the Saptā Sthānas were in the first place trying to make the contours of the *torāṇa* co-ordinate with the space available between the beams and the pilasters (Fig. c). The shrine at Tillaisthānam does have a lintel above its niches, but there is no sign whatsoever of a *makaratoraṇa* — and rightly so, for the space where it ought to have been is too narrow (Pl. 24). The *torāṇa* is also absent on the *vimāna* walls of the shrine at Tiruppalanam — again due to lack of space (Pl. 23). Here the half-size niche pilasters are missing as a result of which the full-size pilasters — and consequently their *palagais* — almost touch each other. However, there is some space available between the pilasters of the *ardhamāṇḍapa* walls. That between the *uttira* and the lintel on the other hand, is rather restricted. The result is a flat *makaratoraṇa* similar to that which the Pallava architects designed over the niches of the Olakaneśvara at Māmallapuram. The pilasters of the shrine at Tiruvēdikkudi — the third monument with three *devakoṣṭhas* in each *vimāna* wall — stand so far apart that there is almost too much space for a *makaratoraṇa* (Pl. 25). The tails of the makaras above Gaṇeśa sprawl over the lintel and the crescent between the makaras embraces the entire width of the niche. Under the antithetic makaras is a horizontal band from which a garland is suspended. Within its loops *nāṭṭya-peṇs* are depicted. The other *torāṇas* of this temple cannot be described as they are too damaged.

Fig. c. Various shapes of the makaratoraṇa and kūdu on the Sapta Sthānas.

name of village	makaratorana	kūdu
Tillaisthānam	no makaratoranas	
Tiruppalanam		?
Tiruvēdkkudi		
Tiruchchātturai		
Melatiruppūndurutti		
Tirukkāṇḍiyūr		
Tiruvaiyār (Paṇc.)		

The makaratoraṇas of the shrine at Tiruchchātturai are exceedingly ungainly, rectangular blocks which are practically jammed between the palagais (Pl. 26). There is no room at all for tails, so they are curled up on the lintel. Obviously, the sculptors did not finish these blocked-out shapes, and so the effect of arches was not achieved on this monument.

At Melatiruppūndurutti, the space for the makaratoraṇas is limited due to the short distance between the palagais and the kumbhas (Pl. 29b). However, there is sufficient room between the lintel and the uttira, thus creating a rather tall toraṇa instead of a wide one.

On the building at Tirukkāṇḍiyūr we find only the contours of the blocked-out makaratoraṇas (Pl. 28). Within these contours describing almost a semi-circle, another, undulating "contour" has been indicated. There is sufficient space between the uttira and the lintel and between the two palagais, so the makaras of the toraṇas in question do not have to fight for room on the lintel, but exhibit their scrolling tails horizontally and vertically.

Finally, on the Pañcanāḍīśvara at Tiruvaiyārū there is just enough space between the pilasters to accommodate a rectangular block which is beautifully carved with curling makara tails.

At first sight it seems illogical to consider the makaratoraṇas with the

voluptuously dangling tails to be older than those of which the tails are squeezed between the kumbhas and the lintel. For, the latter concept would seem to indicate an unexpected lack of space, as if the architects had not decided in advance how exactly they were going to apply the makaratoraṇas. However, the makaras with tails sprawling over the lintel are already found on the oldest shrine, viz. at Tiruppalanam, albeit on the relatively wide ardhamāṇḍapa walls only. At Tiruvēdikkudi, they appear also on the vimāna and the manner in which they are applied demonstrates that the sthāpati had apparently discovered that lack of space could be remedied by slightly widening the central bay. When, subsequently, the sthāpatis started to experiment with the layouts of the vimāna, for instance at Tiruchchātturai, new, unexpected problems arose, for now the kumbhas prevented the tails of the makaras from curling around the lintel. Since we have pointed out in our conclusions (pp. 324-25) that the Early Coḷas were the first in South India to erect — almost exclusively — vimānas with central bays jutting out, it is not surprising that to begin with they did not know exactly how to bring the width of this part of the wall in harmony with its stylistic features. It looks as if the shrine at Tirukkaṇḍiyūr represents the last experiment, for here the central bay is wide enough to accommodate the complete design of a toraṇa with makaras spreading their tails over large parts of the walls.














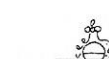





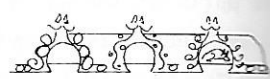
The space was fully utilized on the monuments built shortly after or even during the construction of the Sapta Sthānas, for instance at Tiruchchennampūḍi, Kumbakonam and Śrīnivāsanallūr (Fig. d). Here the outlines of the palagaḥ and kumbhas on either side of the makaratoraṇa appear to be the limits within which the contours of the toraṇa had to be shaped (Pls. 30 and 31a,d).

At Kilaiyūr another experiment can be observed. The architect of the Agastyeśvara extended the toraṇa onto the uttira by carving over the medallion a crown-like ornament on the uttira. Moreover, each medallion contains a different motif, viz. a rosette, a śiṃhamukha, or a nāṭṭiya-peṇ instead of the figure of Gaṇeśa which occupies that place at Tiruppalanam and Tirukkaṇḍiyūr.

On the walls of the Mūvar Koyil at Koḍumbāḷūr in the Muttaraiyar/Irukkuvel area, a similar search for alternatives can be noticed, albeit restricted to the inside of the toraṇa, as will be shown shortly (Fig. e).

From the above it can be concluded that the sthāpatis of the Sapta Sthānas unintentionally left two types of makaratoraṇa for posterity. One with hanging tails and one in which the tails of the makaras are curled up on the lintel. This is clear from a case like the shrine at Puḷḷamaṅgai, where both types were applied.

Fig. d. Various shapes of the makaratoraṇa and kūdu on monuments built along the Kāverī between A.D. 870-900

name of village	makaratoraṇa	kūdu
Tiruchchennampūṇḍi		
Kumbakonam (Nāg)		
Śrīnivāsanallūr		
Nemam		
Tirukkattavūr		
Lalgudi		
Tiruchchendurai		
Kilaiyūr (A)		
Nangavaram		
Pullamāṅgai		

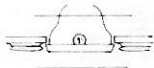







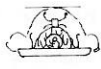


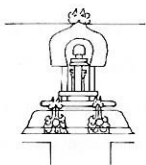
i) ardhamāṇḍapa as at Lalgudi; on vimāna as at Kilaiyūr, but remaining under uttira.

Turning our attention to the decoration inside the contours of these two types of toraṇa, it appears that four different solutions were tried out (Fig. c). At Tiruppalanam, Tiruvēdikkudi and Tiruchchātturai it is an almost closed circle within the crescent formed by a garland; at Tiruvaiyaru and again at Tiruvēdikkudi, a smaller crescent instead of a circle; at Melatiruppūndurutti a semi-circle in the crescent; and, finally, a completely different solution at Tirukkattavūr, in which the loops of a garland hang from a horizontal beam and touch the tēl, thus absorbing all the available space.

At Tiruchchennampūṇḍi, Kumbakonam and Śrīnivāsanallūr (Fig. d) we find variations on these four basic types. At Lalgudi, Tiruchchendurai, Kilaiyūr and Koḍumbālūr (Fig. e), variations on one and the same building can be noticed. The makaratoraṇas at Tiruchchennampūṇḍi (Fig. d) resemble those on the ardhamāṇḍapa at Tiruvēdikkudi (Fig. c) except for the horizontal line above the garlands in the latter. At Kumbakonam (Fig. d) this peculiar horizontal accent is



repeated, but the wide arch within the loops of the garland has shrunk into a rather small semi-circle.

Fig. e. Various shapes of the makaratoraṇa and kūdu in the Muttaraiyar-Irukku-veḷ tracts.

name of village	makaratorana	kūdu
Panangudi		
Kannanūr		
Tirukkattalai		
Kodumbalur	  	 
Melakkadumbūr Nārttamaḷai		

At Śrīnivāsanallūr (Fig. d) the crescent was further reduced. The makaratorāṇas at Nemam (Fig. d) can best be compared with those at Melatiruppūndurutti (Fig. c). At Lalgudi (Fig. d) experiments were tried out on both the crescent and the garland. In one instance the "horizontal" line above a large crescent is not completely straight; above the Ardhanārī niche the loops of the garland are hanging in three large curves, partly covering a closed circle.

Fig. f. Various shapes of the makaratorāṇa and kūdu on monuments built in the Kāverī delta during the first half of the 10th century.

name of village	makaratorana	kūdu
Tiruppurambyam		?
Tiruvādūturai		?


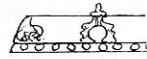

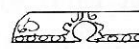

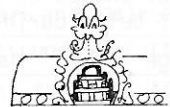

The sculptors of the monuments at Tiruppurambyam and Tiruvādūturai (Fig. f) preferred a relatively large space under the garlands in which they depicted the deities. This preference seems to have been carried on into the subsequent phase, next to the tiny, almost closed circle (Fig. g).



With the building activities of Śembyan Mahādevī some alterations in the shape of the makaratoraṇa seem to have been introduced (Fig.g). For, apart from the usual type, we occasionally find a simplified version of the complicated garland-cum-bhūtagaṇa friezes. This second variant consists basically of three simple scrolls on either side of the semi-circle. However, this is not a new type of ornamentation, for it occurs again and again on the kapotas of earlier temples, framing kūdus (cf. kūdus at Puḷḷamaṅgai, Fig. d).

In view of the above it is obvious that the shape of the makaratoraṇa displaying so many different variations is not a particularly suitable criterion for dating temples. In the first place monuments built after the Sapta Sthānas all have sufficient space between the pilasters and between the uttira and the lintel. Nevertheless, they display either the short-tailed or the long-tailed makaras, which shows that they were merely selected on the basis of personal preference and not according to the availability of space. Secondly, the mythological centre of the toraṇa can be either a crescent or a semi-circle or a tiny, almost closed circle, but a preference for one of these possibilities cannot be established. Those koyils which have toraṇas with curls instead of makaras can, however, be attributed to the days of Śembyan Mahādevī or later (cf. Fig. 41a-c, p. 211).

Fig. g. Various shapes of the makaratoraṇa and the kudu on monuments built in the Kāverī delta during the second half of the 10th century.

name of village	makaratoraṇa	kūdu
Tirumiyachchūr		
Tirunaṇaiyūr Tirukkoḍikkaval Tiruvallaṅguli Ks		
Puṇjai		
Tiruvēṅkōḍu		?

## 2. The development of the kūdu during the Early Coḷa period.

The kūdu or gavākṣa including its composition, is a purely decorative ornament and a separate topic.<sup>1)</sup> The observed variations illustrated in our drawings, seem to indicate that in the course of a century the kūdu gradually changed from a horseshoe-shaped ornament into a closed circle just above the edge of the

kapota. The garland motifs around the horseshoe or circle differ already on the earliest monuments. The variations displayed at Tillaisthānam and Tirukkaṇḍiyūr (Fig. c) became the most popular in Early Coḷa architecture. The space inside the kūdu frame may contain smiling faces, animals, rosettes or scenes representing the worship of a liṅga, or may be left empty. On the earliest monuments the lower end of these "panels" does not coincide with the edge of the kapota, but is placed slightly higher. However, at Tirukkaṇḍiyūr and Tiruvaiyār (Fig. c) it is in line with the edge of the kapota. At Tiruchchennampūṇḍi (Fig. d) the border of circles running along the kapota is not interrupted by the kūdus. A century later this idea re-appeared at Tirumiyachchūr (Fig. g), but now the complete kūdu is moved up and carved above the border of circles. This upward move of the kūdu continues in the following phases, i.e. the Middle and even Late Coḷa periods, for the originally wide open horseshoe is then reduced to a tiny dot somewhere halfway up the kapota and consists of scrolls around an invisible point (cf. the kūdus on the Melakkadambūr at Nārttāmalai, Fig. e).

Independent of these changes in shape and contents the Early Coḷa kūdu is always crowned by a siṁhamukha — usually a separate block placed on the kapota. This explains why these heads are so often missing. In the Muttaraiyar tract, on the other hand, they are part of the kapota-blocks and carved into a rosette (cf. Panangudi and Koḍumbāḷūr, Fig. e).

In view of the fact that the Coḷeśvara at Kilaiyūr (Fig. d) displays the rosette, whereas the Agastyeśvara in the same compound does not, because the blocks above the kūdus are missing, we have serious doubts whether the rosette is a purely Muttaraiyar-Irukkuveḷ(-Pāṇḍya) contribution to Early Coḷa architecture and, consequently, whether the monuments exhibiting this motif were built by the Muttaraiyars, the Irukkuveḷs or even the Pāṇḍyas, as is assumed by several authors (appendix 4). On the other hand, we believe that in the very first years of the Early Coḷa phase, the rosette and the siṁhamukha were applied alternatively. For, two shrines east of the Sapta Sthānas display the rosette on a short neck (Tirukkaḷavūr) or the siṁhamukha on a long neck (Puḷḷamaṅgai, Fig. d), while two shrines west of the Sapta Sthānas reflect the same duality, this time in the reverse, the rosette on a long neck (Nangavaram) and the siṁhamukha on a short neck (Tiruchchennampūṇḍi, Fig. d).

That the history of the kūdu is complicated and cannot be explained by assuming regional norms also becomes obvious, when comparing the kūdus on a few so-called Muttaraiyar, Irukkuveḷ and Pāṇḍya monuments. At Kaḷugumalai (Chandra 1975, Pl. 127) the siṁhamukha as well as the shovel appear above the kūdu, both rising well above the edge of the kapota. At Tiruvālīśvaram (Chandra 1975,

Pl. 129) the kūḍus remain under the kapota, while the siṃhamukha and shovel have turned into rosettes. At Tiruppattūr (Chandra 1975, Pl. 132) we find loose blocks in the shape of a siṃhamukha above the kūḍus which in addition are almost closed.

From this short excursion into an unexplored area, viz. the development of the South Indian kūḍu, it is clear that no general statements can be made about the chronology of its various shapes. It may be true that the Early Coḷa kūḍu started out from a wide open horseshoe motif inherited from the Pallavas and gradually turned into a tiny circle. However, we doubt whether this process ran parallel to that in the surrounding areas such as the Pāṇḍya country. If so, then the shrine at Kannanūr — attributed to the 9th century (Chandra 1975, Pl. 145) — with its small circles well above the lower fascia of the kapota was built later. The same applies to the Pāṇḍya monuments at Enadi and Tiruvālīśvaram (Chandra 1975, Pls. 129 and 137, p. 300).

Apart from the shape and position of the inner circle in this motif, more aspects could be studied, for instance, whether the top decoration is part of the kapota block or a loose element; whether the bottom of the kūḍu coincides with the bottom of the kapota; whether the lower edge of the space inside the kūḍu coincides with the bottom of the kapota (Fig. c); whether the border of circles is interrupted by the kūḍu; what sort of foliage decorated the horseshoe-shape and finally, what its inner circle contained. As to the question of the siṃhamukha and the rosette, we are afraid that these motifs are of little use in tracing the development of the kūḍu, since they are the first details to disappear.

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- 1) Professor van Lohuizen drew my attention to the curious fact that the term for a small round window in Sanskrit is "gavākṣa" or "cow's eye", while such a window is called "bull's eye" in English, and "oeuil de boeuf" in French.

## Appendix 7

Temples belonging to the Sapta Sthāna style; their characteristics and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village	characteristics		Dating <sup>1)</sup>	according to			References <sup>2)</sup>
		loc.	cont. layout <sup>3)</sup>		B	Br	H	
1.	Tiruppalanam <sup>4)</sup>	1-A-1	II-5-b/3-A-3	872	890-	872		BI,153;Br 54-55
2.	Tillaisthānam <sup>4)</sup>	1-A-1	II-3-b/3-A-0	878	878-84	878		BI,160-64;Br 56-57
3.	Tiruvēdikkudi <sup>4)</sup>	1-A-1	II-4-b/3-A-1	889	889	882-83		BI,156-57;Br 55-56
4.	Tiruchchātturai <sup>4)</sup>	1-A-1	II-2-b/1-A-0	883	883	883		BI,157-60;Br 59
5.	Tiruvaiyārū(P) <sup>5)</sup>	1-A-1	II-2-b/1-A-0	876	890	885		BI,149-52;Br57-58
6.	Tirukkaṇḍiyūr <sup>4)</sup>	1-A-1	II-2-b/1-A-1	876	918	885		BI,146-49;Br 58
7.	Melatiruppūndu-rutti <sup>4)</sup>	1-A-1	I-2-a/1-A-0	881	940-69	885		BI, 164-66;Br 59
8.	Kumbakonam	1-A-1	II-3-b/3-A-1	885	910	886		BI,133-36;Br68-69
9.	Tiruchchennam-pūṇḍi	1-A-1	II-4-b/3-A-1	-	920	885-86		Br 70-71
10.	Śrīnivāsanallūr <sup>1)</sup>	1-A-0	II-3-b/3-A-0	894	927	895		BI,100-03;Br 74
11.	Lalgudi <sup>1)</sup>	1-A-1	I-2-a/1-A-0	898	897	- 898		BI,97-99;Br 53
12a.	Kilaiyūr(A) <sup>1)</sup>	1-A-0	II-2-b/1-A-0	884	892	892		BI, 107-11;Br50-52
b.	Kilaiyūr(C) <sup>1)</sup>	1-A-0	II-2-b/1-A-0	884	892	892		
13.	Aṇḍanallūr	1-A-0	II-4-b/1-A-0	918	918	895?		BII,15-17;Br 71-72
14.	Tiruchchendurai	1-A-0	II-2-b/1-A-0	893	909	895?		BI, 93-97;Br 52-53

1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12-15.

2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; Br = Barrett 1974.

3) Loc.cont = locational context, viz. a region dominated by monuments with a specific number of niches in the vimāna(1-), an ardhamandapa directly attached to it(-A-) and a specific number of niches in the ardhamandapa (varying from 0 to 3). These aspects will be discussed in the last paragraphs of chapter three.

4) The Sapta Sthānas are seven shrines connected by means of a story of strictly local origin, as might be clear from the following (Balasubrahmanyam 1966, p.152): "There was a Brahman called *Trisuli*; when a child, in sheer wantonness, he is said to have put a stone, instead of food, into the begging bowl of a sage. The boy grew up and was married in due course but he had no issue. Thereupon, *Trisuli* did severe penance. The sage, who had been insulted in his childhood, appeared in a dream before *Trisuli*, and told him that it was the result of his misdeed in his childhood; but that, in view of his repentance, he would be rewarded with a child which he would find enclosed in a box. This child had a bull's face. He was an ardent devotee of Siva and was crowned as the head of the *Siva-Ganas*. He was married at Tirumalavadi, on the northern bank of the Kollidam (Coleroon) [three miles away from Tiruvaiyārū] where this story is situated. After the wedding, he was taken in procession round seven temples, in-



cluding Tiruvaiyaru as the hub of this group. The other centres are Tiruppallur, Tiruchchorrutturai [i.e. Tiruchchātturai], Tiruvedigudi [i.e. Tiruvēdikudi], Tirukkandiyur, Tiruppundurutti [i.e. Melatiruppūndurutti] and Tillaisthanam. The annual celebration in memory of this event is known as the *Sapta Sthana* festival of Tiruvaiyaru, held in the month of *Chitrai* (April) which attracts a huge crowd from the surrounding villages."

- 5) P=Pañcanādīśvara, see also note 4).
- 6) In fact, a double typology can be applied to the shrine at Śrīnivāsanallūr: 3-A-0 or 1-?-1, a problem which will be discussed on p. 158.
- 7) A double typology can be applied to the monument in this village: 1-A-0 or 1-B-0, a problem dealt with on p. 158.
- 8) A=Agastyeśvara; C=Coḷeśvara. Both monuments are situated in the same courtyard.

Other characteristics not listed in this and the four following appendices are enumerated in appendices 12-15. We decided not include information with regard to iconographical data, except in the case of the *Sapta Sthānas* and the temples built during the same period as these buildings seem to illustrate the experimental stage of Śaiva iconography in the Coḷamaṇḍalam at the end of the 9th century.

Assuming that the icons listed on p. 375 are contemporary with the buildings in which they are placed — a situation which was taken for granted by all authors referred to — then the following remarks can be made with regard to the supposedly experimental stage in Early Coḷa Śaiva iconography.

1. Niches in the vimāna could accomodate any representation of a manifestation of Śiva. In this connection the icons identified as Brahmā should be reconsidered, for Śiva in his Maheśvara aspect can be depicted with three (four) heads (cf. Elephanta, Gopinatha Rao, Vol. II, pp. 382-85).
2. There is no regional preference for whatever combination of vimāna devatās. "Irukkuveḷ" and "Muttaraiyar" monuments — as listed in appendix 4 — do not form separate clusters when classified according to the devatās on their first talas.
3. Representations of Viṣṇu and Brahmā are absent in the earliest koyils of the *Sapta Sthānas*. Viṣṇu appears in combination with Śiva as a Harihara sculpture later on. Vaiṣṇava iconography is represented, though, in tiny panels under the vari and kaṇṭha at for instance Puḷḷamaṅgai. This configuration can be interpreted as a temporary suppression of the Viṣṇu cult which used to be illustrated by means of huge panels covering the walls of caves and niches.



4. The cult of deities of the second echelon such as Durgā and Gaṇeśa shows an obvious, regional preference. For, in the old Muttaraiyar and in the Irukkuvēl areas these deities were worshipped in small, separate chapels - making niches in the walls of an ardhamandapa redundant, whereas in the apex of the delta in due course the Pallava/Bāṇa solution was preferred, i.e. niches in the walls of the ardhamandapa in order to accommodate icons of Durgā and Gaṇeśa (see for instance Takkolam, Tiruttāni, appendix 15, no. 10, Barret 1974, pls.6-8).

Iconographic characteristics of the Sapta Sthānas and related shrines.

Name of village	vimāna niches			ardhamandapa niches	
	north	west/east	south	north	south
1.Tiruppālanam	[S]	[S]	[S]	[D]	[G]
2.Tillaisthānam				-	-
4.Tiruchchātturai				-	-
3.Tiruvēdikkudi	[Br]	[Ar]	[Dm]	D?	?
5.Tiruvaiyārū				-	-
8.Kumbakonam				D?	?
9.T.chennampūndi				?	?
(15) Tirukkalavūr (app.9,no.18)				D	G
6.Tirukkandiyūr	?			?	?
(16) Pullamaṅgai (app.8,no.2)	Br	[Lin]	Dm	D	G
7.M.T.pūndurutti	[Bh]	Ar	[VD]	-	-
11.Lalgudi				-	-
(17) Koḍumbālūr (app.14,no.10) central vimāna		[Gd]		-	-
10.ŚrTnivāsan- allūr	Br	[Hh]	Dm	?	?
(18) Nemam(app.9, no.24)				-	-
(19) Tiruverumbūr (app.8,no.1)				(D)	(G)
14.T.chendurai	?	? Hh	VD	[VV]	-
(20) Nangavaram (app.9,no.22)		[V]		-	-
12a-b Kilaiyūr	Br	[K]	S	-	-
(21) Tirukkaṭṭalai		V	[Tp]	-	-

For references see pp. 376-77. numbers refer to temples listed on pp. 373,378. the shrine at Aṇḍanallūr(no.13) was omitted from this list since we do not know the contents of its niches.

At Śrīnivāsanallūr the western niche is empty, but its makaratorāṇa contains a Narasimha sculpture like that at Tiruveṇṇambūr. At the latter site a Harihara figure is placed in the western niche. At Nemam the Viṣṇu figure does not belong to Barrett's "first phase" and might be a replacement of a Harihara figure. This could have taken place when niches were added to the ardhamandapa (ca. A.D. 950) and Gaṇeśa as well as Durgā were installed.

☐ First appearance of Śiva, Viṣṇu, Brahmā, Durgā or Gaṇeśa;

☐ first appearance of other manifestations of Śiva

S = Śiva; D = Durgā; G = Gaṇeśa; Br = Brahmā; Ar = Ardhanārī;  
Dm = Dakṣiṇāmūrti; Lin = Liṅgodbhava; Bh = Bhikṣāṭana; VD = Vīṇādhara  
Dakṣiṇāmūrti; Gd = Gaṅgādharamūrti; Hh = Harihara; VV = Vṛṣavāhana;  
V = Viṣṇu; K = Kārttikeya; Tp = Tripurāntaka.

References to iconographical characteristics. Numbers refer to temples listed on p. 375.

1. Balasubrahmanyam 1966, pls. 79a-c.
2. Dhaky 1971, p. 273, pls. 420-21, ca. A.D. 845; de Lippe, p. 171, pl. 222, ca. A.D. 878; Soundara Rajan 1975, p. 290. According to him the images represent Dakṣiṇāmūrti, Brahmā and Viṣṇu.
3. Dhaky 1971, pls. 422-23, before A.D. 864.
4. Dhaky 1971, pls. 424-25, ca. A.D. 881; de Lippe, p. 72, pls. 224-25, ca. A.D. 883.
5. Soundara Rajan 1975, p. 291.
6. Balasubrahmanyam 1966, pls. 77b-c.
7. Dhaky 1971, pl. 427, ca. A.D. 882; Soundara Rajan 1975, p. 291.
8. Balasubrahmanyam 1966, pls. 69a-b; Barrett 1974, pl. 12; Dhaky 1971, p. 274, ca. A.D. 886; de Lippe, p. 173, pl. 230, ca. A.D. 886; Soundara Rajan 1975, p. 268. He also includes Bhikṣāṭana which is placed in a lateral niche of the vimāna. This figure might originally have occupied the southern ardhamandapa niche.
9. Balasubrahmanyam 1966, pl. 2-b; Dhaky 1971, p. 276, pl. 427, ca. A.D. 889; Soundara Rajan 1975, p. 275.
10. Balasubrahmanyam 1966, pl. 43, which shows a Dakṣiṇāmūrti(?) in the northern wall of the ardhamandapa, probably belonging to the second tala (pl. 48); Dhaky 1971, p. 277, ca. A.D. 895; de Lippe, pp. 173-74, pl. 246, ca. A.D. 900. Note the precise measurement of the image shown in pl. 246 in relation to the niche as compared with that of other figures (pls. 243-45); Soundara Rajan 1975, p. 292.
11. De Lippe, p. 172, pls. 226-27, ca. A.D. 897; Soundara Rajan 1975, p. 291.
12. Balasubrahmanyam 1966, pls. 57-60; Barrett 1974, pl. 2; Soundara Rajan 1975, p. 274. He includes images of Durgā and Gaṇeśa. This is surprising for the ardhamandapa does not have niches.
14. Soundara Rajan 1975, p. 276 includes a Brahmā figure in his description of this temple, whereas Balasubrahmanyam's publication (1966, pl. 40b) shows that the northern niche is empty.

15. Balasubrahmanyam 1971, pls. 51, 53-55.

16. Dhaky 1961, p. 281, pl. 438, ca. A.D. 918; de Lippe, p. 173, pls. 237-40, ca. A.D. 910-920.

17. Dhaky 1971, p. 279 note 58, ca. A.D. 878-886; de Lippe, p. 167, pls. 209 and 211; Soundara Rajan 1975, p. 272 describes the Bhikṣāṭana figure wrongly as a Brahmā.

The iconographical layout of the central and southern shrines at Koṭumbālūr is as follows (according to de Lippe):

	central shrine			souther shrine			
	north	east	south west	north	east	south	west
grīvā	Śiva	Indra	Dak. Ūmā	Gaṅgadh.	Tripurān taka	Gajāsura	?
tala 1	Śiva	Śiva/Par.	? ?	Śiva/Par.	Kalarī	Naṭarāja	Harihara
tala 2	Bhik.	Ardhanārī	? ?	Bhik.	Gaṅgadh.	Vīṇādhara	?

Bhik.=Bhikṣāṭana; Par.=Parvatī; Gaṅgadh.=Gaṅgadhara; Gajāsura=Gajāsurasamhara.

18. Soundara Rajan 1975, p. 286.

19. Balasubrahmanyam 1966, pls. 66-67.

20. Balasubrahmanyam 1971, pl. 22.

21. Balasubrahmanyam 1966, pls. 36b and 38a-b). The figure shown in pl. 36b does not belong to the same stylistic "race" as the parivāradevatās in the same compound (pls. 38a-b); Soundara Rajan 1975, p. 278. According to him the following iconographical layout is displayed on the temple in this village:

	west	north	south	east
	Lakṣmī-Varāha	Dakṣiṇāmūrti	Dakṣiṇāmūrti	Ūmā Sahita
tala 1	seated Viṣṇu	seated Brahmā	Bhikṣāṭana	-
tala 2	standing Viṣṇu	standing Brahmā	Tripurāntaka	-

## Appendix 8

Characteristics and dates of the vimānas with pañjaras as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village	characteristics			Dating <sup>1)</sup> according to			References
		pañ.	niches	vimāna 3)	B	Br	H	
1.	Tiruverumbūr	Ia	0	I-1-a	875-89	952	886-89	BI, 114-23; Br 114-23
2.	Puḷḷamaṅgai	Ia/Ia	1	III-4-b	910-20	910-20	900-10	BII, 46-49; Br 77
3.	Tiruppurambyam	Ia/Ib	1	II-3-b	871-907	975-85	910-25	BI, 184-86; Br 114-23
4.	Tiruvādūtūrai	Ia/BN	1	1-2-a	910-45	945	925-32	BII, 50-54; Br 77-78
5.	Karandai	Ib/Ib	1	I-2-a	907-55	979	932-35	BII, 183-85; Br 114-23
6.	Tirumayānam	IIb	1	I-2-a	872	985	935-40	BI, 186-88; Br 114-23
7.	Kōyildēvarāyan- pēṭṭai	IIb	1	(II)-2-a	887	978	940	BI, 241; Br 102
8.	Tudaiyūr	IIa	1	I-2-a	871-07	969-85	990-00	BII, 218-19; Br 114-23
9.	Kuttālam	Ib	3	II-2-b	969-85	991	? -992	BII, 176-78; Br 114-23
10.	Tiruvaiyāṇū(TK) <sup>4)</sup>	IIb	3	II-4-b	1015-44	-	? -1015	BIII, 272-73
11.	Manampādi	IIb	3	II-4-b	-	-	985-	SII 92-98/1920-21
12.	Kṭṭappaḷuvūr	IIb	0	I-2-a	919	984	984	BII, 31-39; Br 114-23
13.	Goburapatti	Ia	1	II-4-b	981	-	990-00	BIII, 380-81
14.	Tirumaṅgalam	IIb	1	II-3-b	990	-	990-00	BIII, 128-32
15.	Tiṇḍivanam	IIb	1	II-3-b	956-60	-	960	BII, 144
16a.	Dadapuram(S)	Ib	1	II-4-b	1006	1006	1000-06	BIII, 159-64
b.	Dadapuram(V) <sup>5)</sup>	Ib	1	III-4-b	1006	1006	1000-06	idem
17.	Tennēri	IIb	3	II-4-b	995	-	995	BIII, 405-07

- 1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12-15.
- 2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974; SII South Indian Inscriptions.
- 3) pañ. = type of pañjara; niches = number of niches in ardhamandapa; () = height of the present building probably not original, between brackets the present height of the vimāna; Ia/Ia type of pañj. in vim. and ardham.; BN = blind niche.
- 4) TK = Ten Kailāsa in the compound of the Pañcanādīśvara.
- 5) S = Śiva Koyil; V = Viṣṇu Perumāḷ.

On the back cover of Barrett's second book (1974) the shrine at Kamarasavalli is shown, which we do not include in our list because it does not belong to the Early Coḷa monuments despite the presence of pañjaras on the walls of its vimāna. However, these pañjaras do not belong to our classification, for they consist of two pilasters supporting a kapota on which a śālā stands. This type occurs for the first time on temples built in the days of Kulottuṅga I (A.D. 1070-1120).

## Appendix 9

Characteristics and dates of vimānas without pañjaras built in the pañjara region or during the pañjara phase as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no. on map	6A Name of village	characteristics 1) layout vimāna		Dating <sup>2)</sup> according to			References <sup>3)</sup>
				B.	Br	H	
18.	Tirukkaḷuvūr	1-A-1	I-2-a	870-907	-	887-88	BII, 54-56
19.	Tirukkaliṭṭattai	1-A-1	I-1-a	907-29	-	960	BII, 58-60
20.	Gōvīndaputtūr <sup>4)</sup>	1-B-1	I-2-a	929-79	982	979	BII, 39-40; 163 Br 95-96
21.	Tiruppaltuṛai	1-A-1	I-1-a	9th C.	925	960	BI, 126-28; Br. 73-74
22.	Nangavaram	1-A-0	II-2-b	910-20	910-20	895-910	BII, 41-42; Br 72
23a	Alḷūr(Paṇc.)	5)	II-2-b	913	?- 910	895-910	BII, 11-12;
23b	Alḷūr(Paśu.)		(I)-2-b	924	920		Br 72-73 BII, 12-15,
24.	Nemam	1-A-0	II-2-b	895	870-940	884-95	BI, 142-44; Br 62
25.	Tirukkāṭṭup- pallī	0-A-0	I-2-a	870-00	870-940	-870	BI, 140-42; Br 63
26.	Kōvilāḍi	1-A-1	I-1-a	952	952	renov. <sup>6)</sup>	BI, 145 Br 85
27.	Puñjai	1-B-1	I-1-a	964-68	940	990-1007	BII, 151-56 Br 81-83
28.	Uḍaiyārgudi	1-B-1	(I)-2-b	940	965	940	BII, 70-73 Br 107-08
29.	Uyyakkōṇḍān Tirumalai	1-A-1	(II)-1-a	917	-	979-95	BII, 23

1) Specific number of niches in vimāna(0 or 1), ardhamaṇḍapa connected directly to the vimāna(A) or not(B), number of niches in the ardhamaṇḍapa (0 or 1), counted per wall. ( ) = height of the present building probably not original; between brackets the present height of the vimāna.

2) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12 — 15.

3) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; Br = Barrett 1974.

4) Cf. the monument at Gandaradittam 1-B-1/I-2-a dated ca. A.D. 984 and that at Tirukkuhukavūr with the same layout dated ca. A.D. 982; both koyils are located outside the pañjara-region.

5) Paṇc. = Pañcanāḍīśvara; Paśu. = Paśupatiśvara.

6) renov. = renovated, but not in the Early Coḷa period.



## Appendix 10

Temples belonging to the 1-B-1 category; the layout of their vimāna and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village (and district)	vimāna	Dating B	1) according to Br H		References <sup>2)</sup>
in Tañjāvūr:						
1.	Tiruppurambyam	II-3-b	871-907	975-85	910-25	appendix 8, no. 3
2.	Tiruvādūtūrai	I-2-a	910-45	945	925-32	appendix 8, no. 4
3.	Karandai	I-2-a	907-55	979	932-35	appendix 8, no. 5
4.	Uḍaiyārgudi <sup>3)</sup>	(I)-2-b	940	965	940	appendix 9, no. 20
5.	Tiruvilakkudi	(II)-2-a	969-85	970	959	BI, 167-70; Br 99-100
6.	Gōvīndaputtūr	I-2-a	927-79	982	979	appendix 9, no. 20
7.	Gandaradittam	?-2-a	969-85	983	983	BII, 165; Br 96-97
8.	Tiruvaiyārū(UK) <sup>4)</sup>	II-2-b	- 1006	-	985-1015	BIII, 89-92
9.	Tirukkuhukavūr	I-2-a	982	982	982	BII, 186; Br 95
10.	Puñjai	I-1-a	964-68	940	990-1007	appendix 9, no. 27
11.	Tirukkaḍaiyūr	II-3-b	985-98	-	985-1015	BIII, 104-06
in South Arcot:						
12.	Kīlūr	II-2-b	907-55	959	959	BII, 85-87; Br 87-88
13.	Tiruvāndārkōyil	(III)-2-b	922	990	960 - ?	BII, 83-84; Br 115-16
14.	Bāhūr	I-1-a	965	965	965	BII, 236; Br 86-87
15.	Jambai	(II)-2-a	985-00	-	960-00	BII, 250-51
16a.	Dadapuram(S)	II-4-b	1006	1006	1000-06	appendix 8, no. 25
b.	Dadapuram(V)	III-4-b	1006	1006	1000-06	a and b
in Chingleput:						
17.	Paramēśvaramaṅga- lam	III-1-b	955-85	-	969-85	BII, 207-08

1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12 - 15.

2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974.

3) Uḍaiyārgudi is located in the Tiruchirappalli District but connected to the Kāverī delta by means of a channel and belongs therefore — hydrogeographically — to the Tañjāvūr District.

4) UK = Uttara Kailāsa in the compound of the Pañcanādiśvara.

N.B. Although the undated koyil at Coḷapuram near Kumbakonam was built during the reign of Rājendra I (appendix 11, no. 32), it is not included in this list because the central part of its ardhamaṇḍapa walls juts out.

## Appendix 11

Temples belonging to the B-3 category built in the Kāverī delta between A.D. 969-85; temples built in the Kāverī area between A.D. 985-1044; their characteristics and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and our definite proposals(H).

no.	Name of village	characteristics vimāna ardhamaṇ.	Dating according to			References <sup>1)</sup>
			B	Br	H	
1.	Kōṇērīrājapuram	I-2-a/1-B-3	969-72	969-72	969	BII, 165-72; Br, 90-91
2.	Kṭṭanūr	I-2-a/1-B-3	-	-	969-80	SII 270-76/1950-51
3.	Tirunāgēśvaram	I-2-a/1-B-3	969-85	969-85	969-80	BI, 176-77; Br, 100-01
4.	Āduturai	I-2-a/1-B-3	985	985	969-80	BII, 173-74; Br, 98
5.	Tiruvāṇṇuḷi (Kṣ)	I-2-a/1-B-3	1010	-	969-80	BIII, 92-94
6.	Tirunāraiūr	I-2-a/1-B-3	969-85	986	969-80	BII, 178-81; Br, 109-10
7.	Tiruppugalūr	I-2-a/1-B-3	969-85	-	969-80	BII, 246
8.	Tiruvirāmeśvaram	I-2-a/1-B-3	985-97	-	969-80	BIII, 103
9.	Tirukkodikkaval	II-2-b/1-B-3	980	980	980	BII, 174-76; Br, 93
10.	Vriḍdhāchalam	II-2-b/1-B-3	981	981	981	BII, 197-200; Br, 93-94
11.	Kuhūr	II-4-b/1-B-3	970	970	981-85	BI, 192-93; Br, 100-01
12.	Ānangūr	II-4-b/1-B-3	979	979	981-85	BII, 185-86; Br, 92-93
13.	Tiruvīdaimarudūr	II-4-b/3-B-3	973	973	981-85	BI, 173-76; Br, 92
14.	Sembyan Mahādevī	II-4-b/3-B-3	981	980-81	981-85	BII, 181-83; Br, 94-95
15.	Tiruvārūr (Acales)	III-5-c/3-A-3	969-91	991	985	BII, 195-97; Br, 110-11
16.	Tiruchcheṅgāt- taṅguḍi	II-4-b/1-B-3BN	988	-	981-85	BIII, 96-102
17.	Nāgapattinam	II-2-b/3-A-3	985-1010	-	985	BIII, 109-115
18.	Pateesvaram	II-2-b/1-B-3KP	-	-	970-80	-
19.	Kuttālam	II-2-b/1-B-3P	969-85	991	986	App. 8, no. 9
20.	Tiruvāṇṇuḷi (Kap)	II-4-b/1-B-3KP	985-02	-	988-90	BIII, 92-94
21.	Manampādi	II-4-b/1-B-3P	-	-	988-90	App. 8, no. 11
22.	Tirukkaḍaiyūr	II-3-b/1-B-1BN/P	985-98	-	986-90	App. 10, no. 11
23.	Tiruvaiyārū (TK)	II-4-b/1-A-3P	1015-44	-	1000-10	App. 8, no. 10
24.	Tiruvaiyārū (UK)	II-2-b/1-B-1BN	- 1006	-	1000-06	App. 10, no. 8
25.	Puñjai	I-1-a/1-B-1/2	964-68	940	990-00	App. 9, no. 27
26.	Tirumiyachchūr	I-E-a/1-B-3	969-85	-	990-00	BII, 190-92
27.	Tiruveṅkādū	I-2-a/1-A-0	985-991	-	1000	BI, 188-91
28.	Tirukkōḷlikāḍu	I-2-a/1-A-1	-	-	renovat.	SII 126-40/1935-36
29.	Vēdāraṇyam	I-1-a/0-A-0	renovat.	-	1007-	BI, 183-84
30.	Rāmanātha Kōyil	I-1-a/1-B-3KP	1019	-	1019	BIII, 269-72
31.	Mahārājapuram	I-2-a/1-B-3KP	-	-	1012-44	-
32.	Coḷapuram	II-4-b/1-B-1KP	-	-	1012-44	-
33.	Gaṅgaikōṇḍac	II-4-b/3-B-3KP	1020-44	-	1012-44	BIII, 252-53
34.	Tirumalavāḍi	II-2-b/1-A-3BN	1013-26	-	1013-26	BIII, 267-69
35.	Tiruvārūr (Wan)	I-1-a/1-A-0	-	-	1012-44	-
36.	Tiruvārūr (Tyā)	?-5-c/1-A-1	1030	-	1030	BIII, 276-79
37.	Melappaḷuvūr	I-2-a/1-A-1	1015	-	1015	Sastri I, 187
Along the north bank of the undivided Kāverī: <sup>12)</sup>						
38.	Tirumāṅgalam	II-3-b/1-A-1P	990	-	990-00	App. 8, no. 14
39.	Goburapatti	II-4-b/1-A-1P	981	-	990-00	App. 8, no. 13
40.	Tudaiyūr	I-2-a/1-A-1P	- 907	954	990-00	App. 8, no. 8

1) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974; Sastri I = Sastri 1955; SII = South Indian Inscriptions; App. = our appendix.

2) Ks = Kṣetrapāladeva in the compound of the Śrī Kapardīśvara (no. 5).  
BN = blind niche; KP = kumbhapañjara; P = pañjara; E = elephant's back.

notes to appendix 11(cont.).

- 3) Vriddhāchalam is a village in South Arcot, but its temple belongs in every respect to the delta idiom and was built under the patronage of Śembyan Mahādevī.
- 4) Acales. = Acalesvara in the compound of the Tyāgarājeśvara(no. 36).
- 5) This temple is not mentioned in any publication in English dealing with inscriptions and/or monuments of the Early Coḷa period. There are, however, a few images from this shrine in the Thanjavur Art Gallery. The fact that they display characteristics of the phase of Rājārāja I made us wonder whether the building could be an Early Coḷa monument and so we paid a visit to the site.
- 6) Kap. = Śrī Kapardīśvara.
- 7) TK = Ten Kailāsa and UK = Uttara Kailāsa; both monuments are situated in the courtyard of the Pañcanādīśvara.
- 8) This temple is not mentioned in any publication in English dealing with inscriptions and/or monuments of the Early Coḷa period. We discovered it by accident.
- 9) See note 8).
- 10) Gaṅgaikoṇḍac. = the Pārvatī or Amman shrine in the courtyard of the Gaṅgaikoṇḍacoleśvara at Gaṅgaikoṇḍacolapuram.
- 11) Wan. = Wanyaganātha and Tyā. = Tyāgarājeśvara; both temples are situated in the same, inner courtyard.
- 12) The temples along the northern bank of the undivided Kāverī are included since they belong to the Kāverī area (see caption of this appendix).

When the shrines in the list on p. 381 are re-arranged according to their date in combination with the types of their base (see appendix 12), the following distribution of temple variants appears (see p. 383):

phase	no. of temples	no. of layouts	dominant type of base
1000-1044	10	10	IB1/IIB1
985-1000	11	10	IA2a/IB2a/IIB2a
980-985	10	5	IA2a/IB2a
969-980	8	1	IB2a/IIB2a

Each phase is characterized by a specific spread. The frequency in which new temples were erected is not constant. It is very high in the five years before the death of Uttama Coḷa, viz. each year two buildings.

A.D.

1044	I-2-a/1-A-1 ?-5-c/1-A-1 I-1-a/1-A-0 II-2-b/1-A-3 II-4-b/3-B-3 II-4-b/1-B-1 I-2-a/1-B-3 I-1-a/1-B-3 I-1-a/0-A-0 I-2-a/1-A-0			35	37	36 34
1000	I-E-a/1-B-3 I-1-a/1-B-1 II-2-b/1-B-1 II-4-b/1-A-3 II-3-b/1-A-1 II-4-b/1-A-1 I-2-a/1-A-1 II-3-b/1-B-1 II-4-b/1-B-3	25(2) 38 39 40 22P		33KP 31KP 30KP 29 27 24BN	26 26 21P 20 19P	26 23P 20KP
985	II-2-b/1-B-3 II-2-b/3-A-3 III-5-c/3-A-3 II-4-b/3-B-3 II-4-b/1-B-3 II-2-b/1-B-3	17 13 12 9		16 10	15 14 11 18(KP)	
980	I-2-a/1-B-3	1	6-----6		7-----7 4-----4 3 2	8 5
969	lay-out base	IA2a	IB1	IIB1	IB2b IB2a	IIB2a

N.B. In view of the distribution of temples according to the type of layout and base, the Uttara Kailāsa at Tiruvaiyārū (no. 24) can be attributed to the 11th century. For, its base consists of a combination of mouldings which were dominant in the 11th century. Moreover, its lay-out is unique, whether included in the group of koyils raised between A.D. 985-1000 or in the cluster of monuments erected in the 11th century.

## Appendix 12

Temples east of the Grand Anicut arranged according to the shape of their adhiṣṭhāna and other characteristics, their dating.

Name of the village	lay out	Characteristics <sup>1)</sup>							podigai	ref. <sup>2)</sup>	date
		base	vari	upāna	kāl	ida	nātt.	pan.			
Temples on a IA2a base:											
Tiruppalanam	II-5-b/3-A-3	IA2a	N +	ORS +	-	-	RATH	7, 42	ca.870-875		
Tillaiasthānam	II-3-b/3-A-0	IA2a	- +	ORS -	-	-	Th	7, 42	ca.870-875		
Tiruvēdikkudi	II-4-b/3-A-1	IA2a	c	ORS -	-	+	ATH	7, 42	ca.870-875		
Tiruchchātturai	II-2-b/1-A-0	IA2a	- L	S -	-	-	Th	7, 42	ca.875-880		
Melatiruppūndurutti	I-2-a/1-A-0	IA2a	- +	S -	-	-	Th	7, 42	ca.875-880		
Kumbakonam	II-3-b/3-A-1	IA2a	v1 L	S -	NV	+	Th	7, 42	ca. 886		
Tirukkaḷavūr	I-2-a/1-A-1	IA2a	v +	ORS -	-	+	Th	9, 42	ca.887-888		
Nemam	II-2-b/1-A-0	IA2a	v1 +	S -	-	+	Th	9, 42	ca.884-890		
Tiruverumbūr(Tri)	I-1-a/1-A-OP	IA2a	v1 +	ORS -	-	+	A	8, 42	ca.880-889		
Alambakkam(Tri)	(I)-2-a/1-A-0	IA2a	- +	S -	-	-	A	14,	ca.890-910		
Kōyildevārāyanpēṭṭai	(II)-2-a/1-A-1P	IA2a	v +	S -	-	-	Th	8,	ca. 940		
Tiruppalturai	I-1-a/1-A-1	IA2a	v +	ORS -	-	3x	Th	9,	ca. 960		
Tirukalittattai	I-1-a/1-A-1	IA2a	v1 +	ORS +	-	-	Th	9,	ca. 960		
Tirukkuḷukavūr	I-2-a/1-B-1	IA2a	v1 +	ORS -	-	-	Th	10,	ca. 982		
Kōnērīrājapuram	I-2-a/1-B-3	IA2a	v1 +	OR -	-	+	Th	11, 40	ca. 969		
Tirukkodikkaival	II-2-b/1-B-3	IA2a	v1 +	ORS +	-	+	Th	11, 40	ca. 980		
Ānangūr	II-4-b/1-B-3	IA2a	v1 +	ORS -	-	+	Th	11, 40	ca.981-985		
Tiruvīdaimarudūr	II-4-b/3-B-3	IA2a	v1 +	ORS ?	V ?	?	? 11,	40	ca.981-985		
Nāgapattinam	II-2-b/3-A-3	IA2a	v +	ORS -	V -	-	Th	11, 40	ca. 985		
Tirukadaiyūr	II-3-b/1-B-1BN/P	IA2a	v1 +	RMS +	-	+	Th	11, 40	ca.986-990		
Tirumaṅgalam(Tri)	II-3-b/1-A-1P	IA2a	v H	ORMS +	-	+	Th	8,	ca.990-1000		
Puñjai	I-1-a/1-B-1/2	IA2a	v +	OMS -	-	+	Th	11, 40	ca.990-1000		
Kōvilāḍi	I-1-a/1-A-1	IA2a	v H	ORS -	-	-	Th	9,	renovated		
Temples on a IB2a base:											
Tiruvādūturai	I-2-a/1-B-1P/BN	IB2a"	v1" L	OS -	-	-	Th	10,	ca.925-930		
Karandai	I-2-a/1-B-1PP	IB2a'	v1 L	ORS +	-	-	Th	10,	ca.932-935		
Tirumayānam	I-2-a/1-A-1P	IB2a	v1 ?	S -	-	-	Th	8,	ca.935-940		
Kīṭṭanūr	I-2-a/1-B-3	IB2a"	v1 L	RMS -	-	-	A	11, 40	ca.969-980		
Tirunāgēśvaram	I-2-a/1-B-3	IB2a"	v1 L	ORS -	-	-	Th	11, 40	ca.969-980		
Tiruppugalūr(ex.niche)	I-2-a/1-B-3	IB2a"	v1 L	ORS +	V -	-	Th	11, 40	ca.969-980		
Ādutturai(ardham.)	I-2-a/1-B-3	IB2a"	v1 ?	RMS -	V -	-	Th	11, 40	ca.969-980		
Kūhūr	II-4-b/1-B-3	IB2a	v1 L	ORS -	V -	-	Th	11, 40	ca.981-985		
Sembyan Mahādevī	II-4-b/3-B-3	IB2a"	v1 L	ORS +	-	-	Th	11, 40	ca.981-985		
Tiruvārūr(Ac)	III-5-c/3-A-3	IB2a"	v1 L	ORMS +	-	-	Th	11, 40	ca. 985		
Pateesvaram	II-2-b/1-B-3KP	IB2a"	v1 L	ORS +	N -	-	Th	11, 40	ca.970-980		
Tiruvāḷaṅguḷi(ex.niche)	II-4-b/1-B-3KP	IB2a"	v1 H	RMS +	-	-	Th	11, 40	ca.988-990		
Manampādi	II-4-b/1-B-3P	IB2a'	v1 ?	ORMS +	-	+	Th	11, 40	ca.988-990		
Tirumiyachchūr(ardham.)	I-E-a/1-B-3	IB2a"	v1 L	OS +	-	+	Th	11, 40	ca.990-1000		
Kēlappaḷuvūr(Tri)	I-2-a/1-A-OP	IB2a'	- +	OS -	V -	-	Th	8,	ca. 984		
Mēlappaḷuvūr(Tri)	I-2-a/1-A-1	IB2a'	- +	S -	-	-	T/Th	11,	ca. 1015		
Temples on a IB2b base:											
Tiruchchennampūṇḍi	II-4-b/3-A-1	IB2b"	v1 +	ORMS +	? +	+	Th	7, 42	ca.880-885		
Pulḷamaṅgai	III-4-b/1-A-1PP	IB2b'	v1 +	ORS -	VN +	+	Th	8, 42	ca.885-890		
Tiruppurambyam	II-3-b/1-B-1PP	IB2b"	v1 L	OR -	V +	+	Th	10,	ca.910-925		
Gondaradittam	?-2-a/1-B-1	IB2b"	v L	ORS -	-	-	A	10,	ca. 980		



## Appendix 12(continued).

Name of the village	Characteristics 1)										ref. 2)	date	
	lay out	base	vari	upāna	kāl	ida	nātt	pan.	pod.				
Temples on a IB2b base(continued):													
Vridhāchalām(S.A.)	II-2-b/1-B-3	IB2b <sup>+</sup> -	v	L	ORMS	-	-	-	Thr	11, 40		981	
Tiruchcheṅgāttaṅguḍi	II-4-b/3-B-3	IB2b <sup>+</sup>	v	l	ORS	+	-	-	Thr	11, 40		981-985	
Kuttālam	II-2-b/1-B-3P	IB2b <sup>+</sup> -	v	l	ORM	-	-	+	Thr	11, 40		986	
Temples on a IB1 base:													
Tirukkāttuppaḷli	I-2-a/0-A-0	IB1	(v)	+	OS	-	-	-	A	9,		? -870	
<i>Tiruvilākkūḍi</i>	(II)-2-a/1-B-1	IB1	v	l	OS	-	-	-	Thr	10,		959	
Tirunaṇṇaiyūr(ex.niche)	I-2-a/1-B-3	IB1	v	l	+	ORS	-	-	Thr	11, 40		969-980	
Tirukkoḷikkāḍu	I-2-a/1-A-1	IB1	v	H	OS	-	-	-	Thr	11, 40		renovated	
Vēdāranyam	I-1-a/0-A-0	IB1	v	L	S	-	N	-	T	11, 40		1007(-1044)	
Gaṅgaikōṇḍacolapuram	II-4-b/3-B-3KP	IB1	v	H	S	-	-	-	T	11, 40		1012-1044	
Ramanātha koyil	I-1-a/1-B-3KP	IB1	v	L	OR	-	-	-	T	11, 40		1019	
Mahārājapuram	I-2-a/1-B-3KP	IB1	v	?	OS	+	-	-	T	11, 40		1012-1044	
Temples on a IIB1 base:													
Tirukkandiyūr	II-2-b/1-A-1	IIB1	c	+	ORS	-	-	+	A/Thr	7, 42		875-880	
Tiruvaiyārū(Pan)	II-2-b/1-A-0	IIB1	-	+	S	-	-	-	Thr	7, 42		875-880	
Lalgudi(Tri.)	I-2-a/1-A-0/1	IIB1	v	+	0	-	-	+	Thr	7, 42		880-890	
Kilaiyūr(Tri.)2x	II-2-b/1-A-0	IIB1	-	+	S	-	-	-	Thr	7, 42		890-892	
Tirunaṇṇaiyūr(niche)	I-2-a/1-B-3	IIB1	v	l	+	OR	-	-	Thr	11, 40		969-980	
Tiruvaiyārū(UK)	II-2-b/1-B-1BN	IIB1	v	l	H	0	-	-	+	Thr	11, 40		1000-1006
Tiruveṅkādū	I-2-a/1-A-0	IIB1	-	+	S	-	-	-	Thr	11, 40		ca.1000	
Tiruvārūr(Wan)	I-1-a/1-A-0	IIB1	v	l	+	0	-	-	-	A	11, 40		1012-1044
Colapuram	II-4-b/1-B-1KP	IIB1	v	H	0	-	-	-	T	11, 40		1012-1044	
Temples on a IIB2a base:													
Tiruvalaṅḍuli(Ks)	I-2-a/1-B-3	IIB2a	v	l	?	RMS	-	-	-	Thr	11, 40		969-980
Tiruvirāmeśvaram	I-2-a/1-B-3	IIB2a <sup>+</sup>	v	l	+	ORS	-	-	-	Thr	11, 40		969-980
Āḍuturai(vimāna)	I-2-a/1-B-3	IIB2a <sup>+</sup>	v	l	+	RMS	-	V	-	Thr	11, 40		969-980
Tiruppugalūr(niche)	I-2-a/1-B-3	IIB2a <sup>+</sup>	v	l	+	ORS	+	V	-	Thr	11, 40		969-980
Tirumiyachchūr(vimāna)	I-E-a/1-B-3	IIB2a <sup>+</sup>	v	l	+	OS	+	+	+	Thr	11, 40		990-1000
Tiruvalaṅḍuli(niche)	II-4-b/1-B-3KPIIB2a <sup>+</sup>		v	l	H	ORM	+	-	-	Thr	11, 40		988-990
Tiruvaiyārū(TK)	II-4-b/1-A-3P	IIB2a	v	l	H	SO	-	-	-	Thr	11, 40		1000-1010
Tiruvārūr(Tyag)	?-5-c/1-A-1	IIB2a	v	L	RMS	-	V	+	Thr	11, 40		ca. 1013	
Tirumalavāḍi	II-2-b/1-A-3BNIIB2a		v	+	0	-	-	-	Thr	11, 40		1013-1026	
Temples on a IIB2b base:													
<i>Gōvīndaputtūr</i>	I-2-a/1-B-1	IIB2b <sup>+</sup> -	v	+	ORS	-	-	-	A	10		ca.979	
Kuttālam(paṇḍjara)	II-2-b/1-B-3P	IIB2b <sup>+</sup> -	v	l	ORM	-	-	+	Thr	11, 40		986	
Temple on a IB3 base: :													
Sendalai	(II)-1-a/0-A-0	IB3	-	+	S	-	-	-	Thr	43		? -870	

1) v(l)=vari(with lotus petals); L=upāna with lotus petals; H=high upāna; S=square; 0=octagonal; R=round; M=polygonal; +=present; -=absent; V=vyāli; N=nāṭṭiya-pen; ?=not sure; R=ribbed; A=angular; Th=throated; KP=kumbhapaṇḍjara; P=paṇḍjara; PP=paṇḍjara on both vimāna and ardhamandapa; E=elephant's back; N=footboard under niche; c=vari uninterrupted by niches; b'=kapota with vyālis; b''=kapota with kūḍus and vyālis; a''=paṭṭikā with double row of lotus petals; () = not original or absent.  
nātt.=nāṭṭiya-pen or vyāli; pan.=panel decoration under kāl; pod.=podigai.

Place name in italics= citizen koyil

2) ref.= references(number referring to appendix, Figure in our text.

### Appendix 13

Temples in South Arcot, their characteristics and their dating as suggested by

Name of the village	C h a r a c t e r i s t i c s <sup>1)</sup>					kāl podigai
	base	vari	upāna	vimāna	layout	
1.Tiruvakkarai	IA2a	(c)	(L)	( )-1-b/ ( )-A-( )	S	throated,
2.Tiruvāmattūr	IA2a	c	H	I-1-b / Ø-A-Ø	S	throated
3.Erumbūr	IA2a	-	-	I-2-a / Ø-A-Ø	S	throated
4.Grāmam	IA2a	-	-	II-2-b/ Ø-A-1	S	angular
5.Pēraṅgiyūr	IA2a	-	-	?-1-b/ 1-A-( )	S	throated
6.Bāhūr	IA2a	-	H	I-1-a/ 1-B-1	S	throated
7.Uḍaiyārgudi	IA2a	+	L	( )-2-b/ 1-B-1	OR	throated
8.Tiruvāndārkōyil	IA2a	+	-	( )-2-b/ 1-B-1	S	angular
9.Eśālem	IA2a	+	-	I-2-b/ 1-A-1	SO	angular
10.Pennadam	IA2a	+	-	I-2-b/ 0-A-0	SOM	angular
11.Brahmadēśam(Br)	IA2a"	+	-	I-2-b/ 1-A-1	SOR	T-shape
12.Siddhaliṅgamaḍam	IA2a	+	-	( )-2-b/ 1-A-1	SOR	T-shape
13.Tirunāmanallūr	IIB1	-	-	I-2-a/ 1-A-0	S	throated
14.Kiḷiyanūr	IIB1	-	-	II-2-b/ 1-A-Ø	S	angular
15.Tiṇḍivanam	IB1	c	-	II-3-b/ 1-A-1	SOR	angular
16.Kiḷūr	IB1	+	L	( )-2-b/ 1-B-1	SOR	throated
17.Vriḍdhāchalam	IB2b <sup>1</sup>	+	L	II-2-b/ 1-B-3	SOMR	throated
18.Jambai	IB2a	+	L	( )-2-a/ 1-B-1	SOR	angular
19.Brahmadēśam(P)	IB2a	+	H	( )-2-b/ 1-B-3	SOR	angular
20.Madagadipattu	IB2b"	+	L	I-2-b/ 1-A-1	R	throated
21.Dadapuram(2x)	IB2b"	+	H	III/II-4-b/1-B-1	OR	angular
22.						
23.Tribhuvana	IIB1	+	H	( )-1-c/ 0- -0 0		throated
24.Tirukkoyilūr(V)	IB1	+	HL	( )-1-b/ 1-B-1	S	T-shaped

1) see appendix 12, note 1); Ø = cut-out niche; 2) see appendix 11.

Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

Dating according to			References <sup>2)</sup>
B	Br	H	
renovated 1001		890	BrII,116;BII,201-2.
913	975	910	BrII,78;BII,78-80.
935	935	935	BrII,75-6; BII,67-70.
943	943	943	BrII,76-7; BII,60-3.
-	950	935-40	BrII,88.
965	965	965	BrII,86-7; BII,88-89;App.10.
940	965	940	BrII,107-8;BII,70-9;App.9.
922	990	967-70	BrII,115-6; BII,83-4;App.10.
985-15	-	1000-14	BIII,157-9.
-	-	1015	SII 234-267/1929;BII,191.
985-15	-	1100 -?	BIII,147-50.
-	-	1070	SII 367/1909.
935	935	935	BrII,76;BII,64-7.
870-07	?-940	940	BrII,64;BI,196-7.
956-73	-	950-55/ 980-?	BII,144-5;App.8.
907-55	959	975-80	BrII,87-8;BII,85-8;App.10.
981	981	981	BrII,93-4;BII,197-200;App.11.
985-00	-	980-90	BII,250-1;App.10
1015-44	-	990-1000	BIII,279.
985-15	-	1000-14	BIII,132-3.
1006	1006	1000-06	BrII,116-7;BIII,159-64;App.8, 10
997-17	-	1000-15	BIII,349.
1058	-	1058	BIV,46.

## Appendix 14

Temples in the Tiruchirappalli District arranged according to the shape of their dating as suggested by Balasubrahmanyam(B), Barrett(Br), Soundara

No.	Name of the village	characteristics <sup>1)</sup>	śikhara grīvā vimāna layout base vari kāl podigai
1.	Nārttāmalai	R	block III-5-c / 0-A-0 IA2a - S angular
2.	Kaḷiyapaṭṭi	S	block I-1-a / 0-A-0 IA2a - S angular
3.	Viśalūr	S	block I-1-a / 0-A-0 IA2a - S angular
4.	Tiruppūr	S	block I-1-a / 0-A-0 IA2a - S angular
5.	Kiranūr	S	? I-1-a / 0-A-0 IB1 - S angular
	(Śendalai	?	? (-)-1-a / 0-A-0 IB3 - S throated)
6.	Panangudi	S	pil. I-1-a / 1-A-0 IA2a - S angular
7.	Kannanūr	R	pil. I-1-a / 1-A-0 IA2a - S angular
8.	Tirukkattalai	S	II-2-b / 1-A-0 IA2a - S throated
9.	Koḍumbālūr(Mc)	S	II-2-b / 1-A-0 IA2a - S throated
10.	Koḍumbālūr(Mv)	S	II-2-b / 1-A-0 IIB1 - S throated
11.	Chittūr	?	II-2-b / 1-A-0 IA2a - SOR throated
12.	Virālūr	R	I-2-b / 1-A-0 IA2a - S angular
13.	Śrīnivāsanallūr	S	II-3-b / 1-?-1 IB1 + SOR angular
14.	Tiruchchendurai	S	II-2-b / 1-A-0 ?B1 - S throated
15.	Kilaiyūr	S,R	II-2-b / 1-A-0 IIB1 - S throated
16.	Lalgudi	R	I-2-a / 1-A-0 IIB1 + 0 throated
17.	Tiruverumbūr	?	I-1-a / 1-A-0 <sup>P</sup> IA2a (+) (SOR) angular
18.	Aḷlūr(Pan)	O	II-2-b / 1-A-0 IB1 - S angular
19.	Aḷlūr(Pas)	R	I-2-b / 1-A-0 IIB1 IA2a - S angular
20.	Aṇḍanallūr	?	II-4-b / 1-A-0 IA2a - S throated
21.	Nangavaram	R	II-2-b / 1-A-0 IA2a - 0 throated
22.	Alambakkam(K)	?	( )-2-a / 1-A-0 IA2a - S angular
23.	Kumāravayalūr	?	I-2-a / 0-A-0 IA2a - S angular
24.	Śōmūr	R	I-1-a / 1-A-0 IA2a - S throated
25.	Perungudi	R	I-1-a / 1-A-0 IA2a - S angular

1) see appendix 12, note 1); block=cut-out niche containing slab with images  
pil.=cut-out niche flanked by pilasters.

2) see appendix 11; Ch.=Chandra.

their śikhara, the composition of the grīvā niche and other characteristics; Rajan(Sr) and ourselves(H).

References	2)	Dating according to			H	Appendix
		B	Br	Sr		
BrII,44-6;BI,44-52; Ch,284-5,300.		850-70	?-870	845	860-870	-
BrII, 46-7;BI,52-4;Ch,263-4,300.		850-70	850-?	845-60	?-870	-
BrII,46-7;BI,57-8; Ch,265,300.		850-70	850-?	845-60	?-870	-
BrII,46-7;BI,58-9; Ch,264,300.		850-70	850-?	845-60	?-870	-
Ch,282-3,300		-	-	845-60	?-870	-
BrII,47;BI,54-6;Ch,263,300.		850-70	875	845-60	870-900	-
BrII,62-3;BI,86-7; Ch,282,300.		870-07	870-940	845-60	870-900	-
BrII,60; BI,89-92;Ch,278-9,299.		874	910	915	890-910	-
BrII,74; BII,26-8;Ch,280,299.		921	921	935-50	890-910	-
BrII,86; BII,108-37;Ch,272-3,300.		950-70	950-70	860-75	890-910	-
BII,17-22.		950	-	-	ca.910	-
BrII,47;BI,56-7;Ch,281,300.		850-70	870-907	845-60	ca.925	-
BrII,74-5; BI,100-3;Ch,292-3,300.		894	927	890	875-890	no.7
BrII,52-3; BI,93-7; Ch,275-6,299.		893	909	890-05	890-900	no.7
BrII,50-2; BI,107-11;Ch,274-5,300.		884	892	875	890-892	no.7,12
BrII,53; BI,97-9; Ch,293,299.		898	897	890-05	880-890	no.7,12
BrII,83-4; BI,114-23.		875-89	952	-	880-889	no.8,12
BrII,72-3; BII,11-2.		895-15	910	-	890-900	no.9
BrII,73; BII,12-5.		924	924	-	890-910	no.9
BrII,71-2; BII,15-7;Ch,279,299.		918	918	935	ca.895	no.7
BrII,72-3;BII,41-2; Ch,288-9,300.		910-20	910-20	845	890-910	no.9
BI,103-6.		?-910	-	-	890-910	no.12
BI,132-3.		900	-	-	? -870	-
BII,223.		913	-	-	930-50	-
BII,156.		964-69	-	-	930-50	-

pil.= cut-out niche flanked by pilasters.



Appendix 14 (continued).

Other monuments discussed already in appendices 8-9 and 12 and built after A.D. For references see there.

No.	Name of the village	c h a r a c t e r i s t i c s					Dating according to		
		śikhara	lay-out	base	kāl	podigai	B	Br	H
26.	Tirupalturai (app. 9)	R	I-1-a/1-A-1	IA2a	SO	ang.	9th C.	925	960
27.	UyyakkōṇḍānTiru- mālai(app.9)	O	( )-1-a/1-A-1	IA2a	SOR	thr.	917	-	979-95
28.	Kīlappaluvūr (app. 8,12)	O	I-2-a/1-A-0 <sup>BN</sup>	IB2a"	SO	thr.	919	984	984
29.	Goburapatti (app. 8,12)	?	II-4-b/1-A-1 <sup>P</sup>	IA2a	SOMR	thr.	981	-	990-00
30.	Tirumaṅgalam (app. 8,12)	O	II-3-b/1-A-1 <sup>P</sup>	IA2a	SOMR	thr.	990	-	990-00
31.	Tudaiyūr (app. 8,12)	O	I-2-a/1-A-1 <sup>P</sup>	IA2a	SOMR	thr.	871-907	969-85	990-00
32.	Mēlappaluvūr (app. 12)	R	I-2-a/1-A-1	IB2a"	S	thr./T	-	-	ca. 1005
33.	Nārttāmālai	R	I-1-a/1-B-1	IB2a"	SO	T	10thC.	-	post Early Cola ca. 1025
34.	Amman shrine at Gaṅgaikoṇḍacola- puram(app. 12)	O	II-4-b/3-B-3	IB1	S	T			

In the list the renovated shrines at Enadi, Kamarasavalli and Nirpalani are omitted. In their present, modern state they can be characterized as follows:

Enadi	S	I-1-a/0-A-0	IA2a	S	T
Kamarasavalli	R	III-?-c/0-A-1	IA2a+	SO	ang.
Nirpalani	?	( ) -2-b/1-B-1	IA2a+	S	ang/T

Other features indicating the absence of Early Cola influence are the open porch at Enadi instead of a small closed ardhamandapa; an unique lay-out at Kamarasavalli which has four projecting bays instead of three or five. The niches in the vimāna of this temple are cut-out without further ornaments. From the second tala upwards the building is of brick as is the upāna.

## Appendix 15

Temples in the Palar region arranged according to the shape of their adhiṣṭhānas, their vari, their upāna and other characteristics. Dating as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

	characteristics <sup>1)</sup>										Dating according to			References <sup>2)</sup>
	sikhara	base	vari	upāna	vimāna layout	kāl	podigai	nāṭṭiya	KK	idaī	B.	Br.	H.	
MĀMALLAPURAM														
1. Mukunda Nayanar	O	IA2a	-	-	II-1-b/0-A-(1)	S	R	-	-	-				
2. Arjuna Ratha	O	IA2a	-	H	II-3-b/(5)-A-0	O	R	V	+	-				
3. Shore temple	O	IIA1a	c1	-	V-1-c/(1)-A-0	L	R	-	-	-			L A T E	
4. Dharmarāja Ratha	?	IA2b'	c	H	sandhara	L	R	-	+	-			P A L L A V A	Ch. pls. app. 106-25; 238-9
5. Olakaneśvara	?	IIA1a	c1	H	?-1-a/(1)-A-(1)	L0	R	-	?	-				
KĀNCĪ														
ca. 750-850														
6. Kaiṭāsanātha	R	IA2a	-	-	IV-4-c/?	O	R	-	-	-				
7. Piravātaneśvara	R	IA1a	-	-	II-1-a/(1)-A-(1)	SL	R	-	-	-				
UTTARAMALLŪR														
8. Sundara Varada- rāja Perumal	R	IA2a/ IIB1	- N	H	III-5-c/C-A-1	S	R	N	-	-				
9. Kaiṭāsanātha	R	IA2a	-	H	III-3-c/(5)-A-(1)	S	R	N	-	-				
10. Takkolam ? IB1 N + II-1-b/(1)-A-(1) S RF - ? + 892 892 ?-870 BI, 210-15; Br, 64-5														
11. Brahmadeśam R IA2a N + III-1-c/1-A-1 S RF - - - ?-890 890-910 845-70 BI, 201-5; Br, 67														
12. Tiruttāni E IA2a N + I-1-a/1-A-1 S RF - - - - 903 903 Br, 65-6														
13. Velachchēri S IA2a N + I-1-a/1-A-1 S RF - - - ?-954 961-85 900 BII, 145-8; Br, 107														
14. Tiruvanniyūr O IA2a N + I-1-a/1-A-1 S A - - - - 1017 Ranga, 430-1														
15. Paramēśvaramahāgalam O IA2a v + III-1-b/1-B-1 O A - - + 969-85 - 969-85 BII, 207-8; App. 10														
16. Tiruvallam O IA2a v + I-1-a/1-A-1 S A - - - ?-985 ?-985 900-1014 BI, 215-20; Br, 106														
17. Tennēri ? IA2a v1 ? II-4-b/1-A-3BN ? A - - + 995 - 995 BIII, 405; App. 8														
18. Mēlpādi (Som) ? IA2a - + II-2-b/1-A-1 S A - - - 999 999 999 BIII, 177; Br, 117-8														
19. Mēlpādi (Col) R IA2a v1 + I-1-a/1-A-1 OR A V - - - 1014 1014 BIII, 178; Br, 117-8														
20. Kāvantandālam E IA2a v1 L I-2-b/1-A-1 S Trib - - + 1016 - 1012-16 BIII, 285-87														
21. Vempakkam ? IA2a v1 ? I-1-b/1-A-1 S Trib - ? + - - 1000-30 -														
22. Kuvam E IA2a v1 ? (III)-2-b/1-A-1 S Trib - - - 1012-44 - 1000-30 BIII, 287-90														
23. Pūḍūr R IA2a v1 ? I-2-b/1-A-1 S Td - + - - 1030-34 -														
24. Kāñci (Sok) R IA2a v1 L I-1-b/1-A-1 S T - - + + 870 - 1012-44 BI, 75-7														
25. Kāñci (Ekam) ? IA2a v1 HL ?-2-b/1-A-1 ORM Th - - - - 1012-? -														
26. Tiruvadandē S IA2a v1 HL II-3-b/1-A-1 OR T - - - 959-85 - 1035-? BII, 202-7														
27. Tiruvorriyūr (ardha.) E IA2a v1 L III-E-c/1-A-1 OR T - - - 1012-44 - 1015-20 BIII, 300-5														
28. Tirumaiśai R IA2a v L II-2-b/1-A-1 S T - - - - 1035-? Ranga, 419-22														
29. Kūḷambandē R IIB1 v1 H II-4-b/3-B-1 OR Td - - + - 1023-34 - 1023-34 BIII, 309-11														
30. Tiruppachchiyūr E IB1 v + III-E-c/1-A-? S T - - + - 1012-44 - 995-97 BIII, 293-98.														
31. Tirumullaivāyil E IB2a'/b/v1 L III-E-b/1-A-1 ORS T - - - 983 - 1000-15 BII, 209-12.														
Tennēri (niche) IB2d' v1 ?														
Tiruvorriyūr (vimāna) IB2a'/b/v1 L														

1) see appendix 12; II = ogeed Jagatī Pallava style, i.e. without lotus petal decoration; E = apsidal; RF = ribbed with vertical fascia; Trib = T-shaped with ribs; Td = T-shaped with drop; L0 = pilaster with vyāli (rearing lion) base.

2) see appendices 11 and 14.

## Appendix 16

Some Pāṇḍya temples in the Tinnelveli District.

We have omitted the temples of the Tinnelveli District from our general discussion because there are only few inscriptions from the 9th and 10th centuries. Moreover, their limited number does not allow a demarcation of regions. We paid visits to eleven shrines either because the oldest records on these koyils are inscriptions of Rājarāja I, or because they are generally believed to have been built before A.D. 1000. Six of these monuments appeared to have retained their original features though in some cases only partly.<sup>1)</sup> The other five were either demolished or completely renovated.<sup>2)</sup>

Even the first six examples demonstrate that the Deep South of the Indian subcontinent maintained a local Pāṇḍya idiom during the period in which the Coḷas grew into a powerful nation. This can best be illustrated by comparing some of their features with those which appeared to be essentially Early Coḷa contributions to South Indian architecture. We have, therefore, listed their characteristics in Fig. a.

Fig. a. Main characteristics of Pāṇḍya temples in the Tinnelveli District.

name of village	layout vim./ardh.	other base	vari	characteristics kāl	podigai	śikhara
Tiruvālīśvaram <sup>1)</sup>	II-3-b/0-A-0	IA1	v	S	angular	0
Attūr	II-1-a/0-A-0	IA2a	vl	S	angular	0
Vijayanārāyaṇam <sup>2)</sup>	I-1-a/0-A-0	IA3a	v	S	angular	R
Peruṅguḷam <sup>3)</sup>	?-3-b/ ?	IA3b	vl	-	renovated	-
Sendamaṅgalam	II-1-a/0-A-0	IA2a	v	S	angular	S
Korkai	I-1-a/0-A-0	IA2a	-	S	angular	S

<sup>1)</sup> = central, blind niches covered with makaratorāṇa, other blind niches with kapota.

<sup>2)</sup> = bhūtagaṇa frieze replaced by padmabandha.

<sup>3)</sup> = upāna.

v = vari; vl = vari with lotus petal decoration; S = square; 0 = octagonal; R = round.

Starting with the main innovation introduced by the Early Coḷa sthāpatis, viz. the central bay which juts out, it seems that this feature was neither an invention of the Pāṇḍyas nor an aspect copied by them. The only complete temple with this accentuated central bay is located at Tiruvālīśvaram. Its II-3-b layout is, however, not typically Early Coḷa, for this type of vimāna was known

from the days of the Pallavas. The I-2-a, II-2-b and II-4-b vimānas — the last a type in which the central bay juts out more than the lateral bays — are all absent in this list.

A second, striking deviation from the Coḷa norm is the absence of niches. The shrine at Korkai is merely a plain, bare box and though the other temples do have blind niches, these are restricted to the walls of the vimānas.

A third aspect reveals in its simplicity the regional character of this small group of temples. For we demonstrated in our survey that the Early Coḷa sthāpatis tried to carefully balance the vertical composition of a building by designing vimānas of types I-2-a, II-2-b, II-4-b and so on (p. 86). The architects of the koyils in the Tinnelveli District did not achieve this balance, for next to the more common I-1-a they created the top-heavy type II-1-a.

Other Early Coḷa features such as the pañjara, the false antarāla and the niches in the walls of the ardhamāṇḍapa are all absent in the buildings listed above. This does not imply that the Pāṇḍya sthāpatis refused to build temples with one or more of these features, for a shrine at Īlaṅgi in the Ambasamudram Taluk is constructed according to the I-B-1 scheme. It was renovated from the foundation to the pinnacle by the Pāṇḍya king Alagan Kulāśekharadeva in A.D. 1409.<sup>3)</sup>

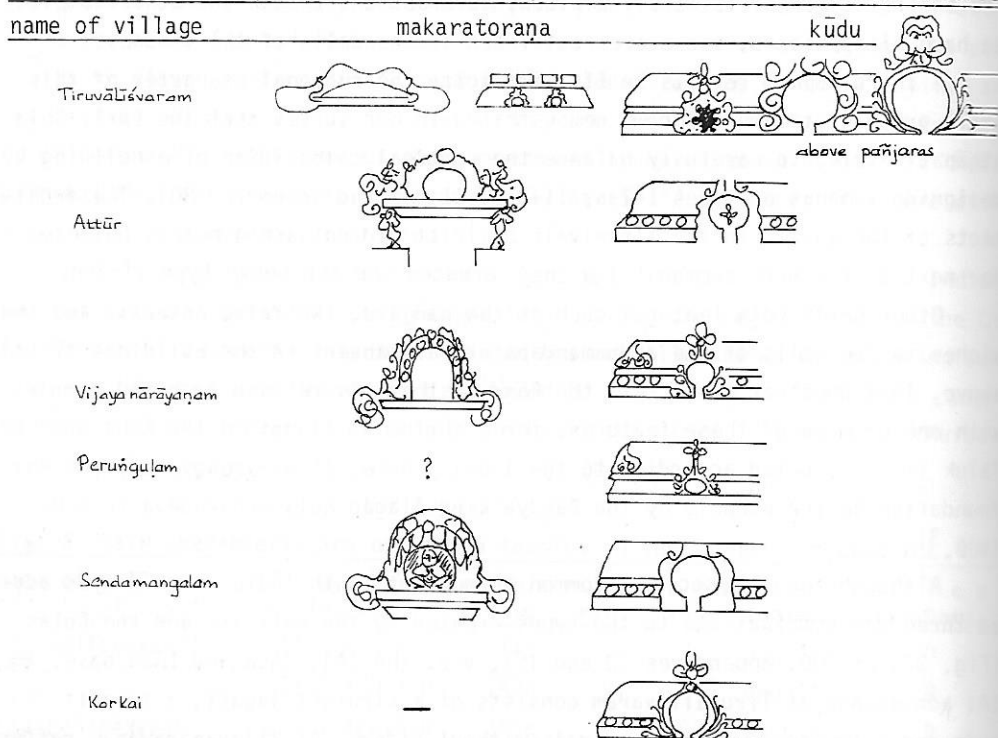
Although the IA2a socle is common throughout South India, the Pāṇḍyas added three new combinations to the types created by the Pallavas and the Coḷas (Fig. 37, p. 200; appendices 12 and 15), viz. the IA1, IA3a and IA3b base. The IA1 adhiṣṭhāna at Tiruvālīśvaram consists of a straight jagatī, a tripaṭṭa kumuda and a frieze of running animals without riders. At Vijayanārāyaṇam rafters are visible above the tripaṭṭa kumuda which are covered by a paṭṭikā. Finally, at Peruṅguḷam we noticed a renovated shrine standing on an original base, viz. an upāna, a straight jagatī and tripaṭṭa kumuda, a kaṇṭha with rafters capped by a kapota. The last element is decorated with small kūḍus with either a rosette or a simhamukha. The profile of the kapota displays a fascia which is straight and carries inscriptions instead of the usual border of circles.

When the base of three out of six monuments deviates from the contemporary Coḷa type, this undoubtedly indicates the existence of a regional architectural style.

Having established the Pāṇḍya character of the adhiṣṭhānas to the south of Madurai, we were surprised to find the Coḷa vari on almost every building. Except at Korkai, this element — be it plain or decorated with lotus petals — is, moreover, interrupted by the, admittedly, blind niches in the walls of the vimānas. The fact that the vari does not run on indicates that it was copied

from other buildings with real devakoṣṭhas. For a blind niche cannot accommodate images and consequently does not need a floor, implying that it was not necessary to interrupt the vari at the place where the blind niche was designed.

Fig. b. Various shapes of the makaratoraṇa and kūdu in the Tinnelveli District.



The kāl and podigai are in every respect angular. In general they are not decorated. The variation in contours and the combination of pilasters, which provide each Early Coḷa temple with an individuality of its own (Figs. 50-52, pp.250, 252) apparently did not appeal to the architects of the six Pāṇḍya ko-yils. On the other hand, they obviously shared with the Coḷa sthāpatis the indifference with regard to the shape of the śikhara.

Finally, we have to pay attention to two features which were discussed in appendix 6, viz. the makaratoraṇa and the kūdu (Fig. b). Comparing these makaras with those in the Coḷamaṇḍalam, it is obvious that the same widely varying types occur in both countries. The kūdus also show this differentiation. They remain either under the edge of the kapota or are crowned by loose blocks. However, the horseshoe —still present at Kaḷugumalai — turned into a circle which either had a tiny slit connected to the bottom-edge of the kapota or was placed



above the vertical fascia. Invariably, the profile of the kapota on which these kūdus occur, display the plain vertical fascia above which circles were carved in a slanting position.

In view of all this we can assume that temple architecture in the Deep South developed according to a specific regional pattern. Soundara Rajan's suggestion (p. 56) to include in this group of koyils the Talinātha at Tirupattur as one of the earliest examples of Pāṇḍya architecture does not seem to be confirmed by the facts, for its deep niches, its pañjaras, its ribbed podigais and last but not least its II-4-b vimāna with its hardly perceivable central bay which is repeated in the kapota of the second tala — are all features common in the Coḷamaṇḍalam, indicating an influence from that direction.

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- 1) 1. Tiruvāliśvaram, Vāliśvara (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 47ff; ARIE, Vol. II, p. 223; Sastri 1955, pp. 455-56 and 706-28; Bootalingam, pp. 76-81; Chandra, pl. 129, p. 257.
  2. Attūr, Somanāthesvara (Tiruchchendur Taluk, Tinnelveli District), ARSIE 1929-1930, nos. 386-475.
  3. Vijayanārāyaṇam, Manonmanīśvara (Nanguneri Taluk, Tinnelveli District), SII, Vol. XIV, p. 17ff; ARSIE 1927, nos. 1-14.
  4. Peruṅgulam, Tiruvaḷudīśvara (Sriivaikundam Taluk, Tinnelveli District), SII, Vol. XIV, p. 25ff; ARSIE 1932-1933, nos. 210-41.
  5. Sendamaṅgalam, Kailāsanātha (Tinnelveli Taluk, Tinnelveli District), ARSIE 1929-1930, nos. 476-88.
  6. Korkai, Akkaśalai koyil (Sriivaikundam Taluk, Tinnelveli District), ARIE, Vol. II, p. 223; Sastri 1955, p. 695.
  - 2) 1. Tiruppuḍaimarudūr, Caṇḍeśvara koyil in the Puṭārjuneśvara (Ambasamudram Taluk, Tinnelveli), SII, Vol. XIV, p. 46ff.
  2. Kottaikkarungulam, Rājasimheśvara (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 76.
  3. Kovilkulam, Tennalagar (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 47.
  4. Īlangi, Iruvāliśvara (Ambasamudram Taluk, Tinnelveli District), ER, Vol. III, 1908-1912, no. 528/1911.
  5. Ukkirankottai, Śiva koyil (Tinnelveli District), ARSIE 1935-1936, nos. 194-201; pl. 482 of Temple Survey Project of the Archaeological Survey of India, Madras.
  - 3) See note 2) no. 4.

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a description of the methodology used in the study. It includes information about the research design, the data collection methods, and the data analysis methods. It also discusses the limitations of the study.

4. The fourth part of the report is a description of the results of the study. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the strengths and weaknesses of the study.

5. The fifth part of the report is a conclusion and recommendations. It summarizes the findings of the study and provides recommendations for future research. It also discusses the overall impact of the study on the field of study.

6. The sixth part of the report is a list of references. It includes a list of all the sources used in the study, including books, articles, and other documents. It also includes a list of all the people who contributed to the study, including the researcher and the research assistants.

7. The seventh part of the report is an appendix. It includes all the additional information that is relevant to the study, but that is not included in the main body of the report. This may include maps, tables, and other documents.

8. The eighth part of the report is a glossary. It includes a list of all the terms used in the study, along with their definitions. This is useful for readers who are not familiar with the terminology used in the study.

9. The ninth part of the report is a list of figures. It includes a list of all the figures used in the study, along with their descriptions. This is useful for readers who want to see the data used in the study.

10. The tenth part of the report is a list of tables. It includes a list of all the tables used in the study, along with their descriptions. This is useful for readers who want to see the data used in the study.

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## Glossary

I. Translation of Sanskrit and Tamil architectural terms. Aspects mentioned between brackets refer to the drawings in appendix 5.

- A. adhiṣṭhāna  
(see aspect 3-7) the sockle of the shrine between the upāna or platform and the floor, consisting of several layers in the combination: jagatī, tripaṭṭa kaṇṭha, paṭṭikā (Pallava); jagatī or padma, kapota, vyāli-frieze (Cālukya); jagatī or padma, vṛtta (=round)patti or vṛttapaṭṭa, paṭṭikā or kapota or vyāli-frieze (Coḷa).
- agramaṇḍapa type of entrance hall in Cālukya temples.
- āliṅgapaṭṭikā see kaṇṭha.
- alpa vimāna shrine without (a) hāra (s)
- anarpita term used to indicate that there is no space between the hāra and the main body of the superstructure; typical for the Cālukya, Pāṇḍya and Coḷa styles.
- antarāla a small corridor between the ardhamāṇḍapa and the mukhamāṇḍapa.  
(see aspect 40)
- ardhamāṇḍapa a hall in front of the garbhagrha, usually less wide(Pallava and Coḷa); nearly non-existing or rudimentary in the Cālukya style.  
(see aspect 40)
- arpita term used to indicate the space between the hāra and the main body of the superstructure (Pallava).
- B. bandha a layer or frieze ( see padmabandha).
- bhūtagaṇa-frieze a layer immediately under the kapota consisting of frolicsome dwarfs, often playing musical instruments. Universal feature.  
(see aspect 23,1)
- bhūtamālā see bhūtagaṇa.
- C. catur tala a building consisting of four(=catur) storeys.
- D. deva(ī) a hindu god(dess).
- devakoṣṭha niche for the sculpture of a deity.
- Drāviḍa controversial term used to indicate a South Indian order, but in reality indicating an octagonal shape which was never used for the garbhagrha but common for the śikhara.
- dvarapālas protectors of a temple standing on either side of the entrances to the cella and the hall.
- dvitala a building consisting of two(=dvi) storeys. In case it concerns a temple the śikhara should be counted as a tala.
- E. ekatala a buildings consisting of only one (=eka) storey. In case it concerns a temple, it carries only a śikhara.

- G. gala  
garbhagr̥ha  
gavākṣa  
(see aspect 28,2)  
gopura  
grīvā  
H. haṁsa(bandha)  
hāra  
I. idaḷ  
(see aspect 16,4)  
J. jagatī  
(see aspect 3)  
Jaṭī vimāna  
K. kāl(see aspects 11-15)  
kalaśa(see aspect 12)  
kamala(see aspect 6)  
kaṇṭha  
(see aspect 6)  
kapota  
(see aspect 24)  
karnakuṭī  
kodikkarukku  
(see aspect 24,1-3)  
koyil  
kūdu  
(see aspects 25-28)
- see kaṇṭha.  
the "womb" or cella in which the main deity stands.  
horseshoe-shaped window often called kūdu.  
entrance gateway with tower in a wall surrounding a temple complex.  
neck of the temple on which the śikhara rests.  
goose(-frieze).  
a row of śālās and kuṭīs on top of the prastara, usually only above the garbhagr̥ha, but in the Pallava style it includes the ardhamandapa as well.  
lotus-petals above the kumbha; typical Coḷa.  
sharp tip of lotus petal under the palagai.  
the lowermost layer of the adhiṣṭhāna, usually straight(Pallava), slanting (Cālukya) or shaped in shrine with (a) hāra (s).  
pilaster or pillar.  
the pot-shaped upper end of the kāl.  
lotus-shaped element directly under the palagai.  
the layer of an adhiṣṭhāna between the tripaṭṭa, vr̥tta or kumuda and the paṭṭikā or kapota. In case a vari is present above the adhiṣṭhāna the space in between these two elements is also called kaṇṭha.  
usually the cornice, occasionally a layer of the adhiṣṭhāna or a canopy above a devakoṣṭha. Characteristics are: a straight profile (Pallava), a sloping profile (Cālukya) or a bell-shaped profile (Pāṇḍya); a bottom-fascia decorated by a continuous row of circles (Coḷa) or a straight vertical fascia above which circles alternating with small, incised squares (Pāṇḍya); kūdus and kodikkarukkus (universal).  
a corner pavillion and part of a hāra; rarely also flanking the grīvā.  
decoration of foliage, especially impressive at Kaḷugumalai(Pāṇḍya) and on Coḷa temples.  
Tamil for temple.  
caitya-window motif or horseshoe-shaped ornament on a kapota. The horseshoe is typical of the styles of the Pallavas, Cālukyas and Pāṇḍyas. However, the top of the kūdu differs: a shovel (Pallava), a śiṃhamukha(Pāṇḍya) or a trefoil (Cālukya). The Coḷa kūdu develops into a circle topped by a śiṃhamukha,

kumbha (see aspect 18)	bulbous element above the kalaśa of a kāl, just below the kamala. As a kumbhapañjara it is a pot-like ornament on walls.
kumuda (see aspect 4)	layer of the adhiṣṭhāna above the jagatī; see also tripaṭṭa and vṛtta.
kuṭī	square pavillion, usually a part of a hāra.
L. liṅga liṅgapīṭha	phallic symbol of Śiva inside the garbhagrha. block in which the liṅga rests; square in Cālukya temples but otherwise round. Also called yoni.
M. makaratoraṇa (see aspect 29)	decoration above a devakoṣṭha consisting of two makaras (= mythological animals) resembling crocodiles with foliated tails. The position of the makaras on or above the niche differs regionally.
mālāsthāna (see aspects 14-15)	decoration of a kāl under its padmabandha.
maṇḍapa	pillared hall.
mithuna (see aspect 22,1)	a couple of deities, demi-gods, human beings or dancing girls usually standing on top of a palagai.
mukhamāṇḍapa	a hall in front of the garbhagrha-ardhamāṇḍapa complex. Common in Cālukya and Pāṇḍya architecture but not applied by the Coḷas until the time of Rājendra.
munai	see idaḷ.
N. Nagara	term used to indicate a North Indian order, but in reality only indicating that the groundplan of either the vimāna or śikhara or both is a square.
Nandi	the vāhana or vehicle of Śiva in the form of a reclining bull; present on each corner of the grīva-platform of a temple dedicated to Śiva.
nāsi(kā)	see kūdu.
nāṭṭiya-peṇ	dancing girl.
P. padma	lotus(petal), usually in a row called padmabandha.
palagai (see aspect 17)	abacus; rather wide in the Coḷa style in comparison with the other three South Indian styles.
paḷlip(p)āḍai	sepulchral shrine.
pañjara (see aspects 60-62)	an ornament on a temple-wall consisting of two small pilasters capped by a lintel, a kapota and a kuṭī or kūdu. See also kumbha.
parivāradevatā śha- pel or parivārālaya	a small shrine in the compound of a temple dedicated to deity subordinate to that in the main koyil.
paṭṭikā (see aspect 7)	a layer of the base with a vertical fascia and without decoration; occasionally replaced by a kapota. a feature of Cālukya and Coḷa temples.
podigai (Tamil) (see aspect 19)	Corbel. It has equally wide rolls in the Pallava style, complicated involutions or plain round profiles in the Cālukya style, a stark, angular(45°) profile in the Coḷa style.

	file on Pāṇḍya temples, while the Coḷa corbel is angular with simple, involuted rolls.
prakāra	wall surrounding temple-complex.
praṇāla	channel draining the abhiseka water.
prāsāda	see vimāna.
prastara (see aspects 23-28)	entablature including the bhūtagaṇa-frieze, kapota and vyāli-frieze.
ratha	monolithic vimāna.
S. śālā	rectangular pavillion usually part of a hāra.
sāṇdhāra	a temple with an ambulatory passage.
śikhara (see aspects 37-38)	the uppermost part of the vimāna structure above the grīvā. It has a straight profile in the styles of the Pallavas and Cālukyas, but is small in comparison with the Pāṇḍya and Coḷa śikhara.
siṃhalatā	row of lion's heads.
siṃhamukha (see aspect 26,3)	lion's head.
stambha	see kāl.
stūpī	finial: pot-shaped crowning element over a vimāna.
śukanāsa	protruding element of a śikhara above the projecting entrance of the garbhagrha; a typical western Cālukya feature.
T. tala	storey.
tarāṅga (see aspect 21)	decoration on a podigai.
tripaṭṭi(kā) (see aspects 4,1; 5,1)	kumuda with three facets (Pallava and Cālukya).
U. upāna (see aspect 2)	platform or moulding on which the entire temple- 1) complex rests;
uttira	cross-beam under the bhūtagaṇa-frieze.
V. vāhana	vehicle of a deity.
vari (see aspect 9)	small decorative layer above the adhiṣṭhāna.
Vesara	term used to indicate a mixed order with a round śikhara superimposed on a square shrine, which may result in an apsidal structure (elephant's back).
vimāna (see aspects 37-39)	the sanctum together with its superstructure and base. In South Indian architecture it is basically a cubical building with a pyramidal superstructure. Sometimes the vimāna has the shape of an elephant's back, the cella and the roof both being apsidal (Pallava); a mixed form is the combination of a square cella and an apsidal superstructure (Coḷa).
vīra-kaṇṭha	neck between palagai and podigai.

vṛtta (see aspect 4,5-4)  
vyālivari(Tamil) or  
vyālimālā(Sanskrit)

kumuda with a round profile.  
frieze of leogryphs.

. . . . .

II. Translation of other Sanskrit and Tamil terms used in our text.

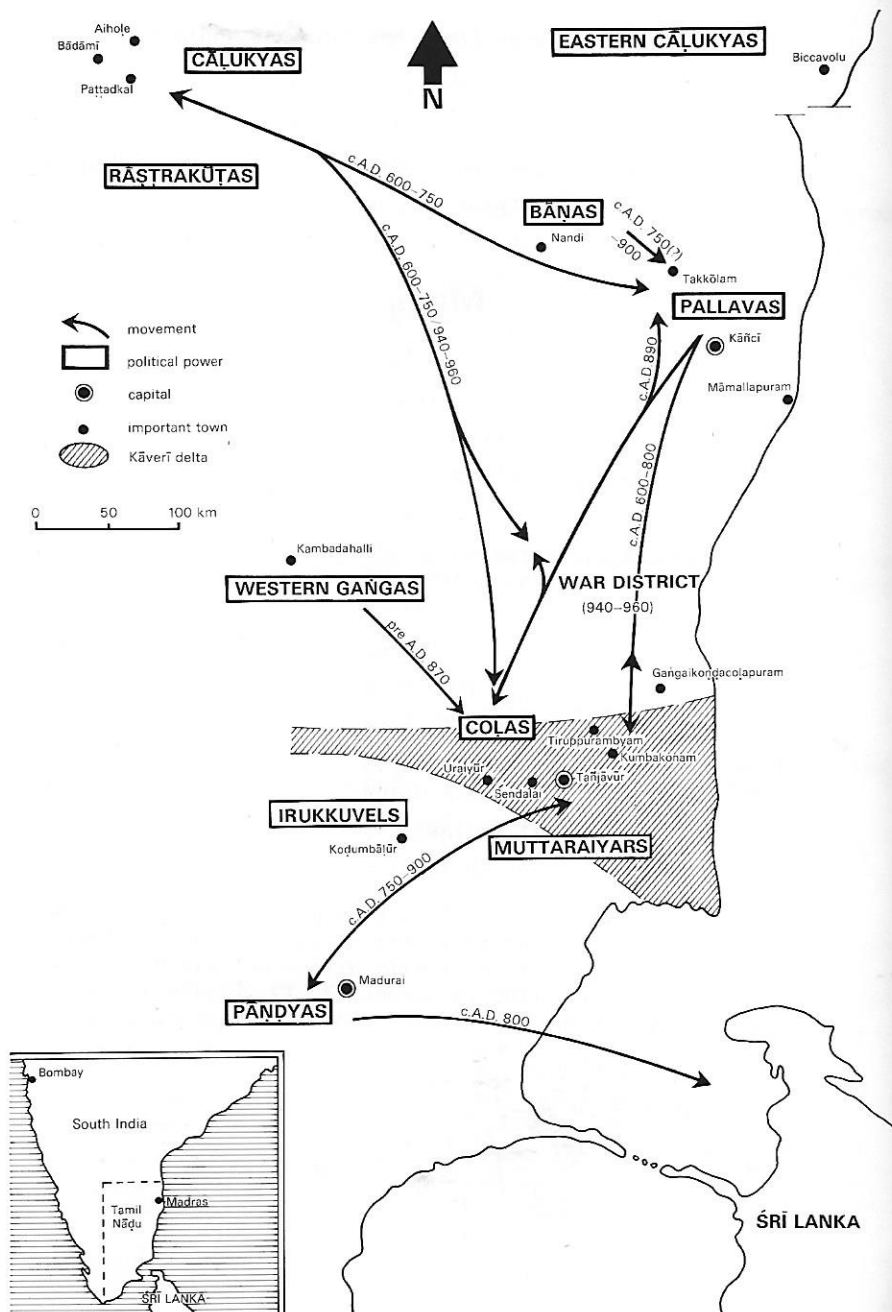
abhiṣeka	sacred bath
anicut	weir
caturvedimaṅgalam	"four-vedas-settlement"
Coḷamaṇḍalam or Coḷanāḍu	region inhabited by the Coḷas(Kāverī area)
devādasī	temple dancer
dikpālas	eight guardian deities
Garuḍa	vehicle of Viṣṇu
ekadaśa	eleven
Nāḍu	country
nagara	merchant village
pradakṣiṇa	circumambulation, ambulatory
ṛṣi	saga
Sapta Mātrkāś	the seven mothers(consorts of Brahmā, Viṣṇu, Siva etc) worshipped together in a separate chapel
śāstra	manual
sthāpati	architect
Taluk (Tamil)	part of a district
Toṇḍaināḍu	area coinciding more or less with present
Toṇḍaimaṇḍalam	North Arcot and Chingleput Districts
Trimūrti	Brahmanical triad: Brahmā, Viṣṇu, Śiva
ur	village or town

- 1) At one time the terms upāna and upapītha seem to have indicated the same moulding(s). In an inscription referring to the Śrī vimāna at Tañjāvūr, for instance, it denotes the entire structure from "the upāna to stūpī" (from the upapītha to the stūpī). Cf. Krishnan, p. 307. See also Balasubrahmanyam's long explanation with regard to the vagueness of these terms(1966, p. 264).

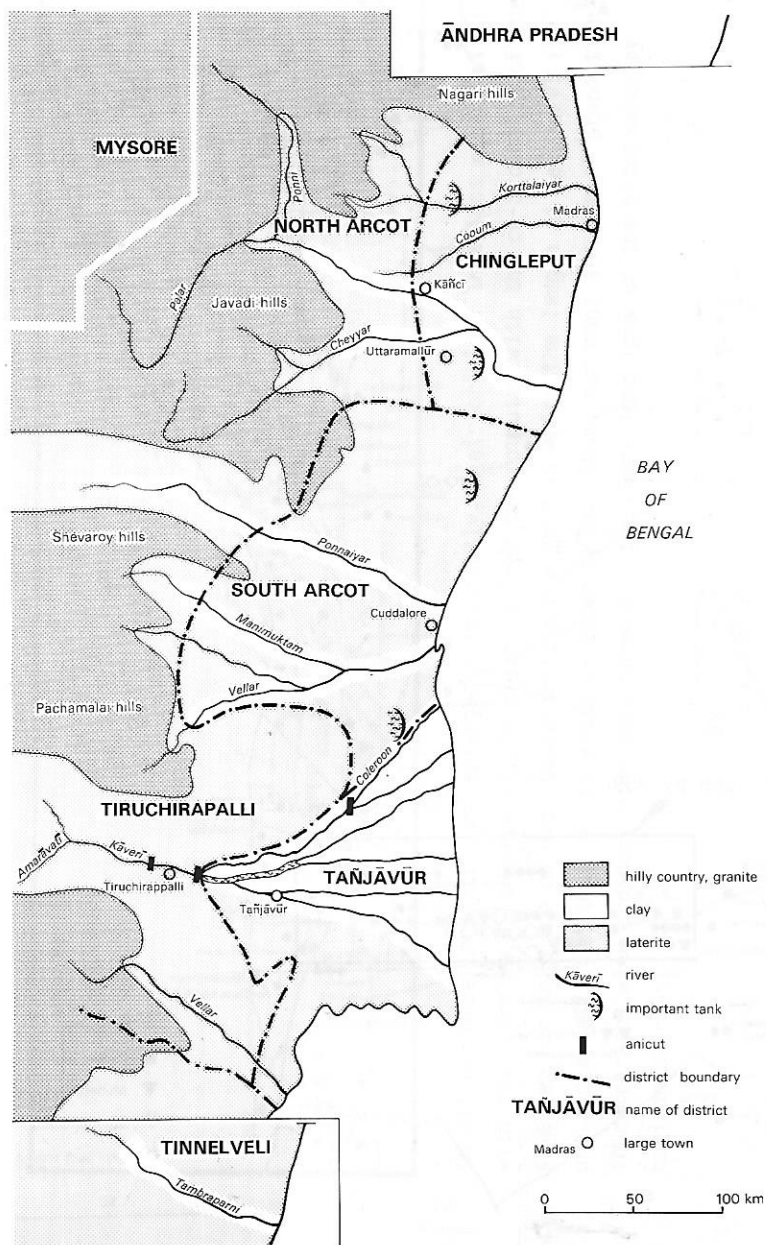


## Maps

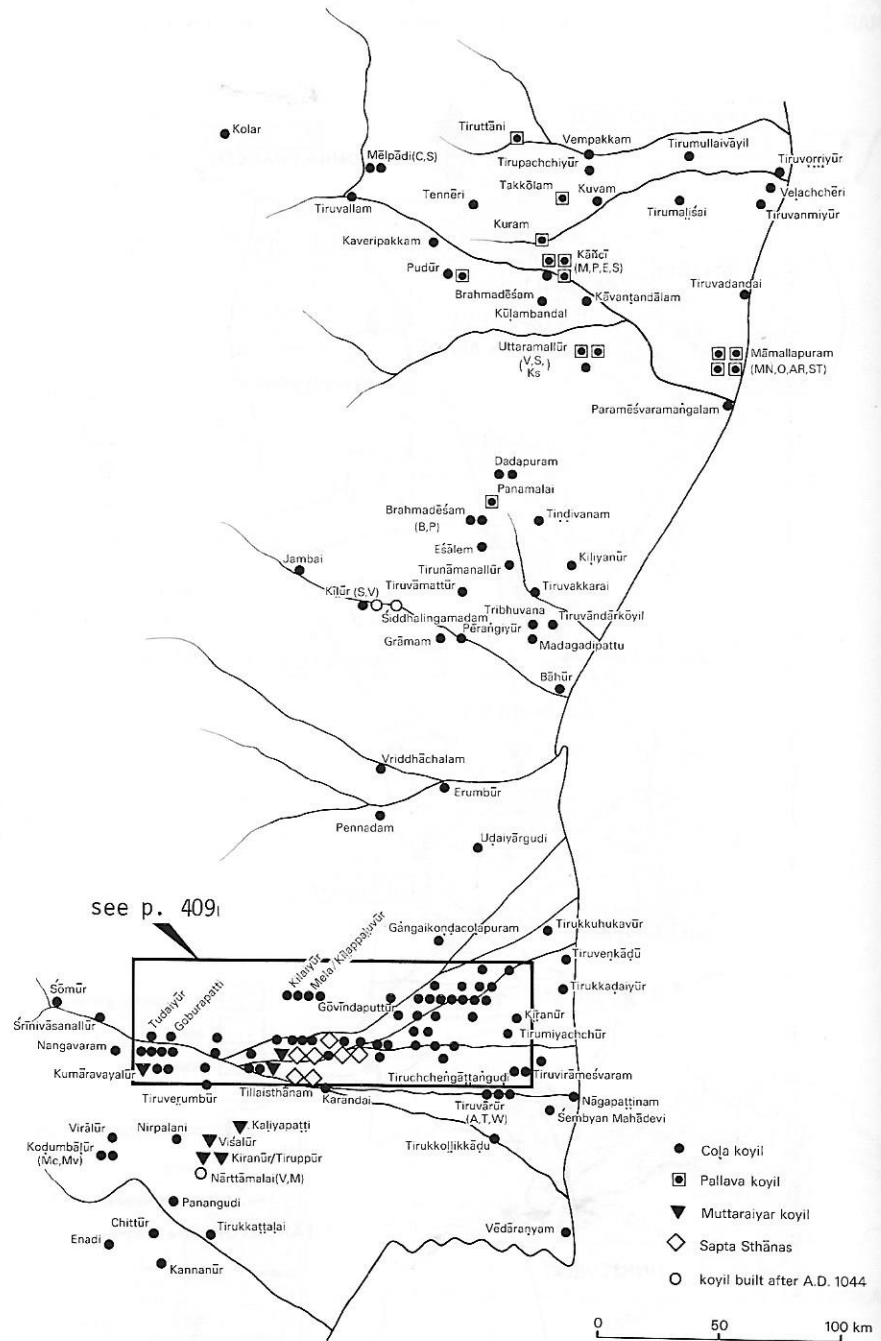
MAP 1. Major political movements in South India between ca. A.D. 600 - 985



MAP 2. Eastern part of Tamil Nāḍu, topography and boundaries.



MAP 3. Location of early temples in Tamil Nāḍu.

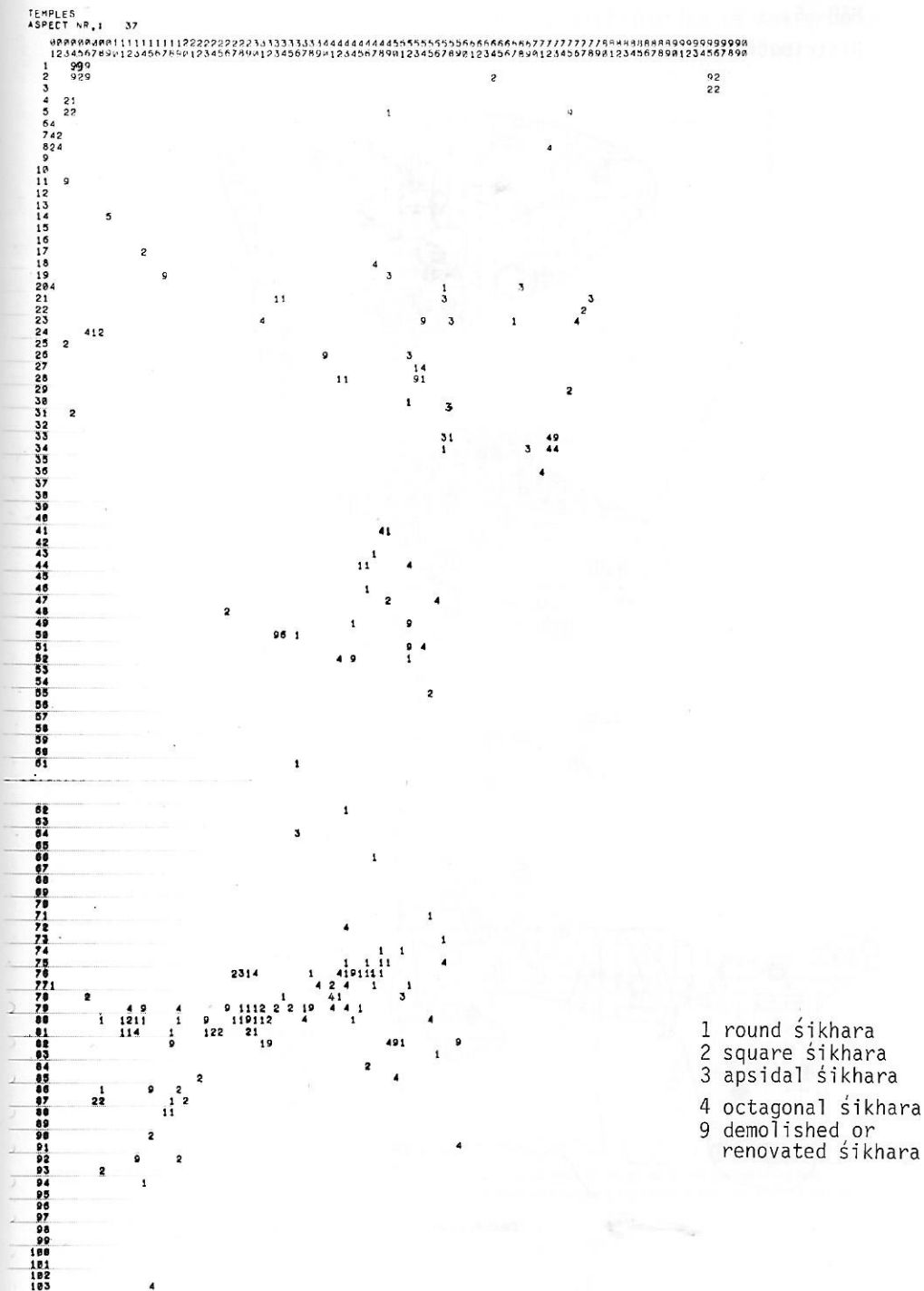






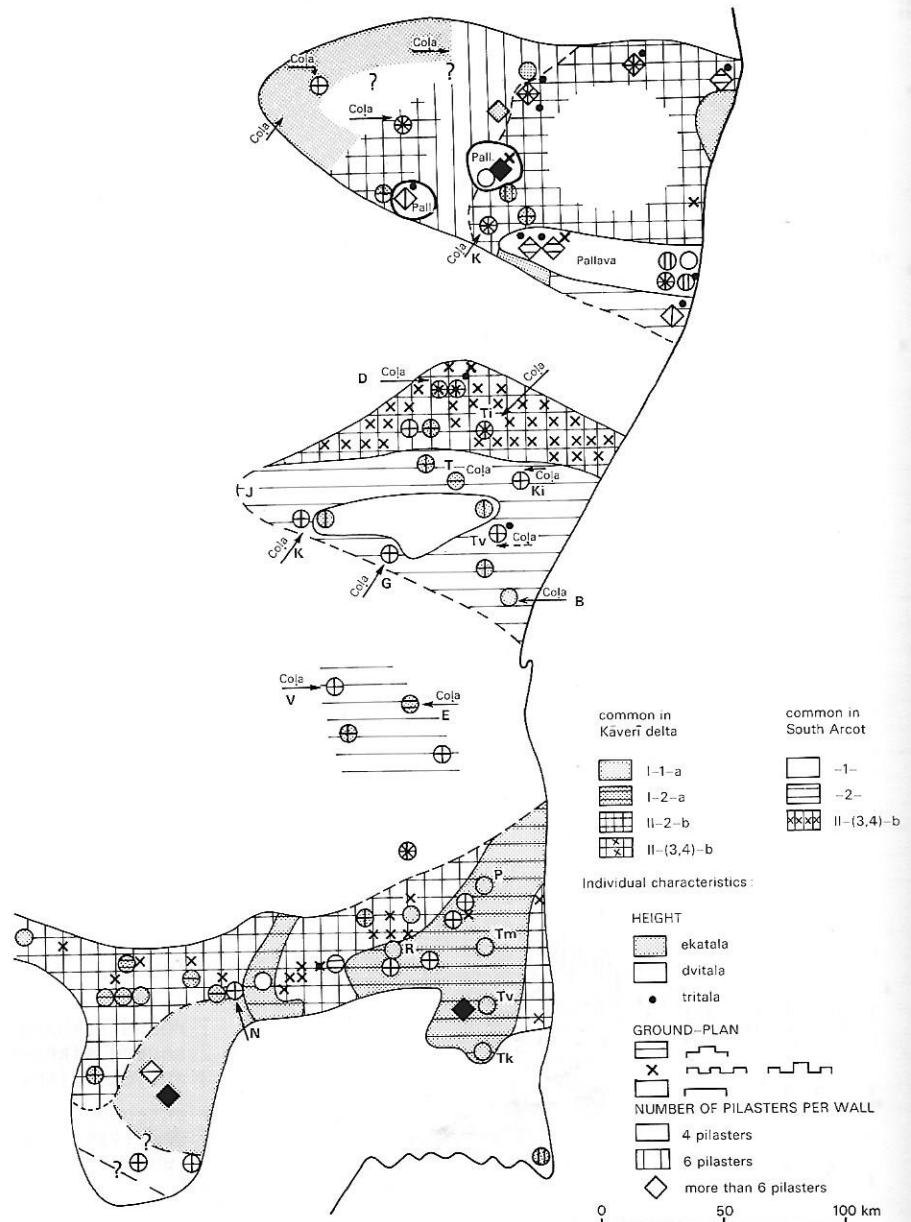


MAP 4. Example of a computer map showing the distribution of śikharas.



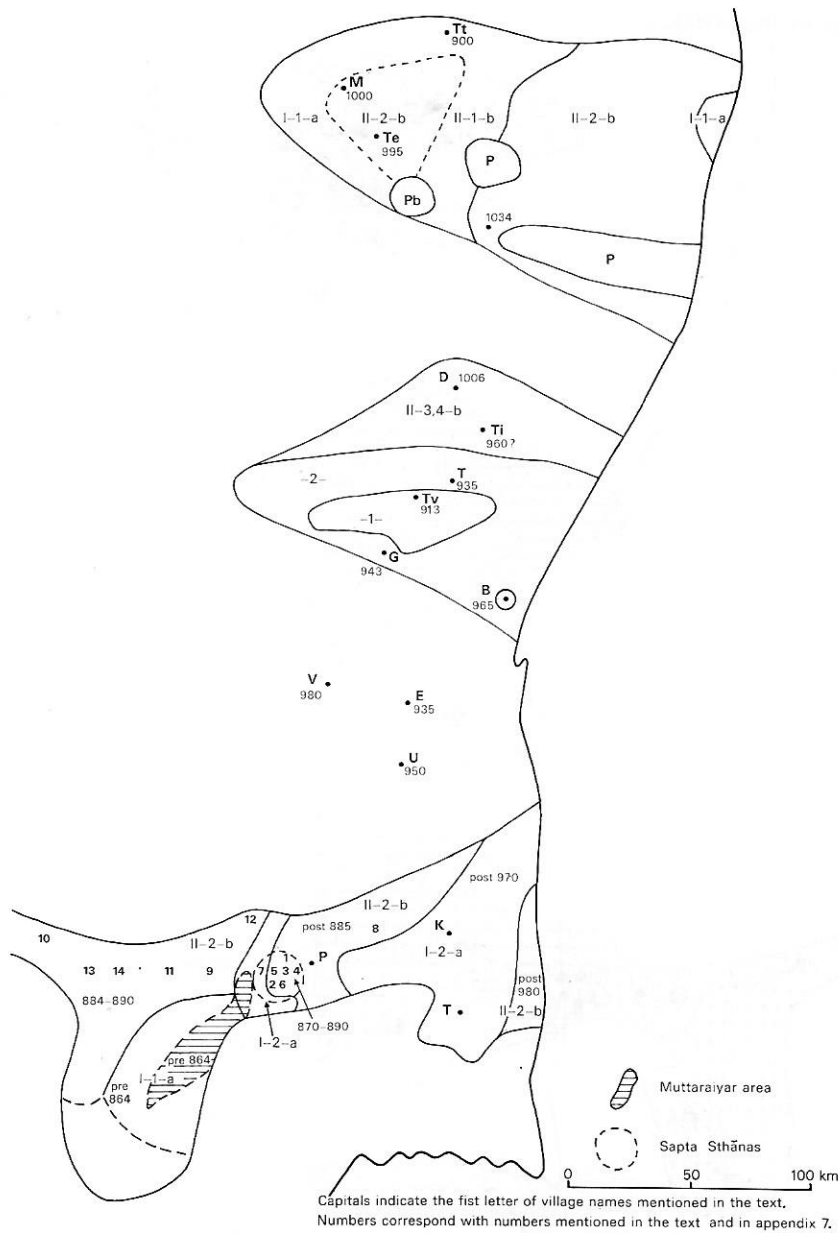
MAP 5.

Distribution of the ground-plan variants of vimānas.



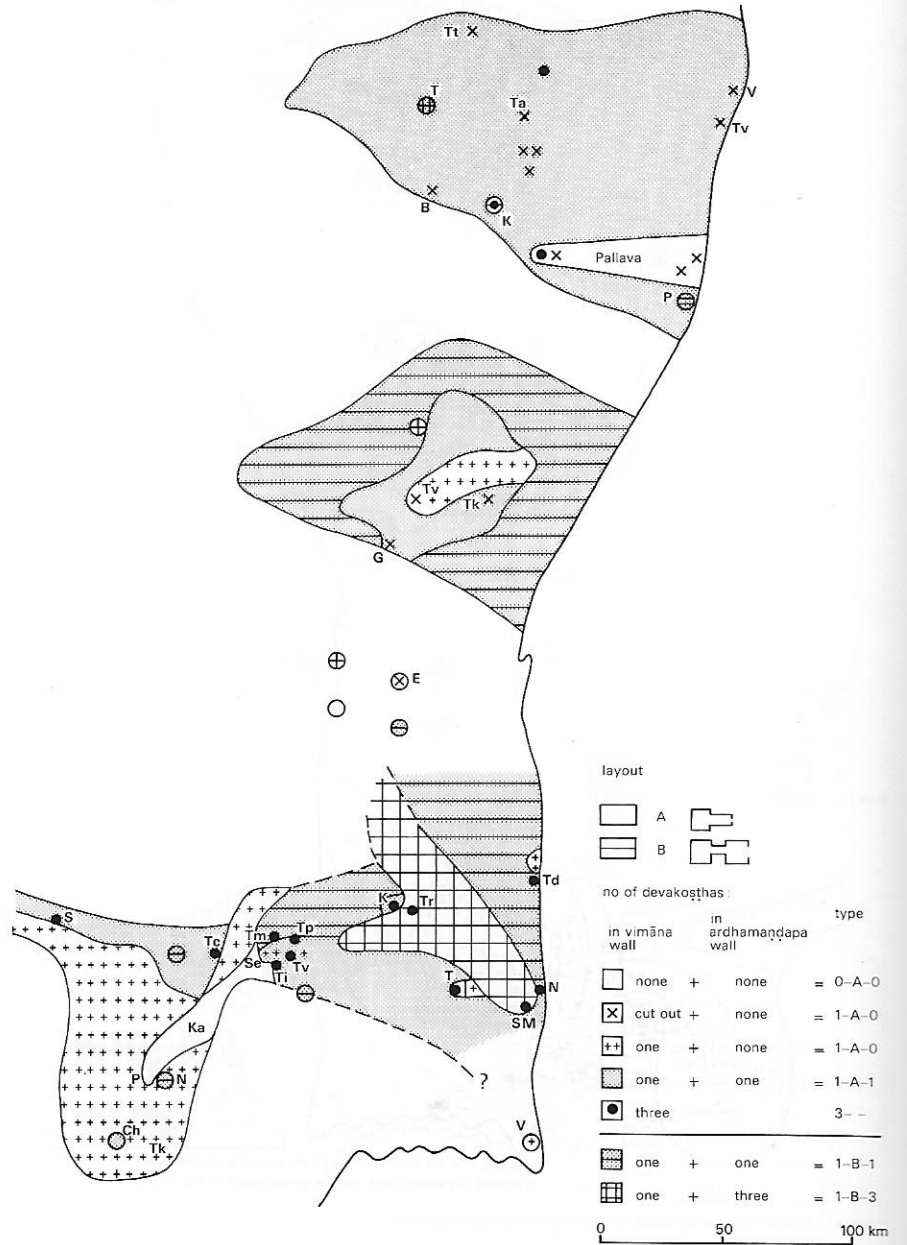
Capitals indicate the first letter of village names mentioned in the text.

MAP 5A. Chronology of the regions based on the distribution of the ground-plan variants of the vimānas and on inscriptional evidence.



MAP 6.

Distribution of the complete temple layouts in combination with the sum total of devakoṣṭhas in both the vimāna and the ardhamandapa.

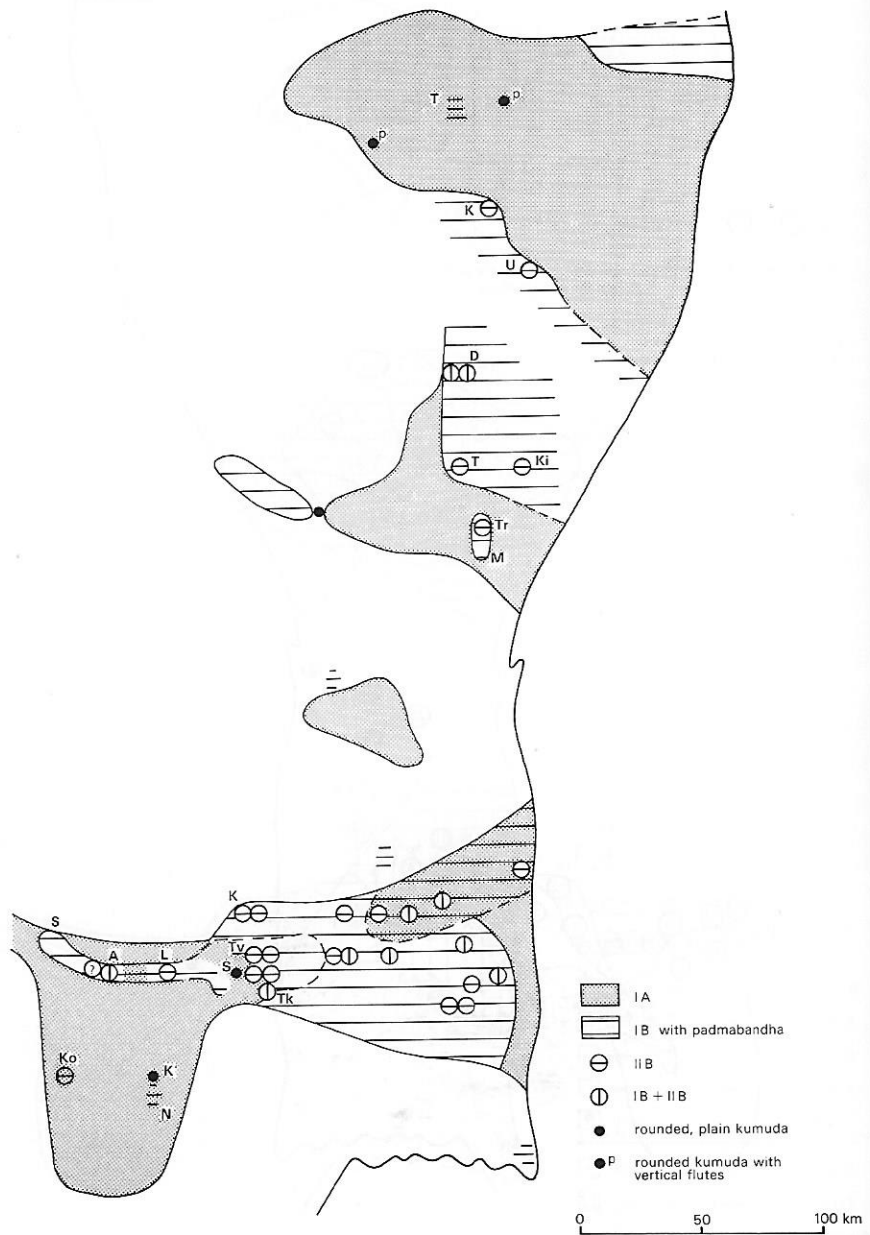






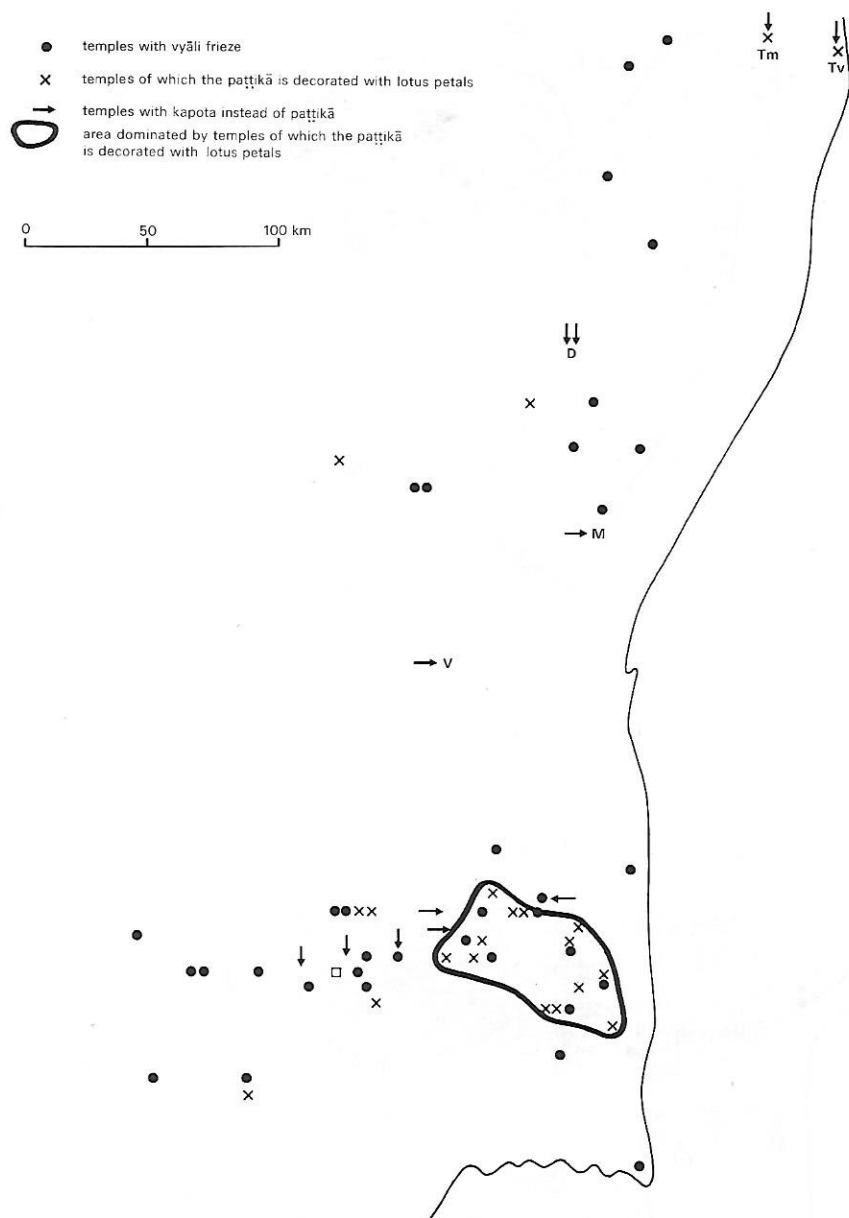
MAP 7.

Distribution of the variants of the jagatī and kumuda.



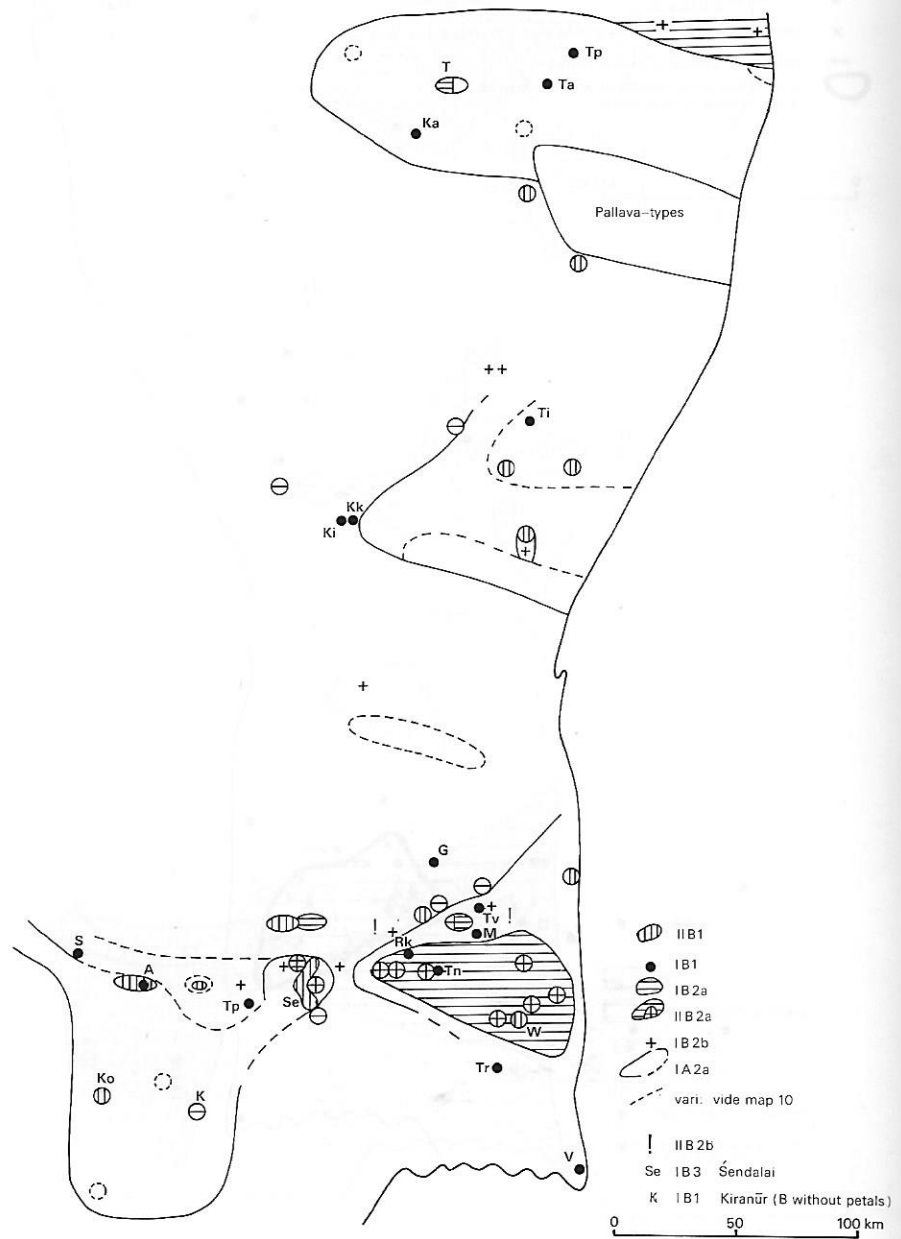
MAP 8.

Distribution of the vyāli frieze, the kapota and the paṭṭikā.



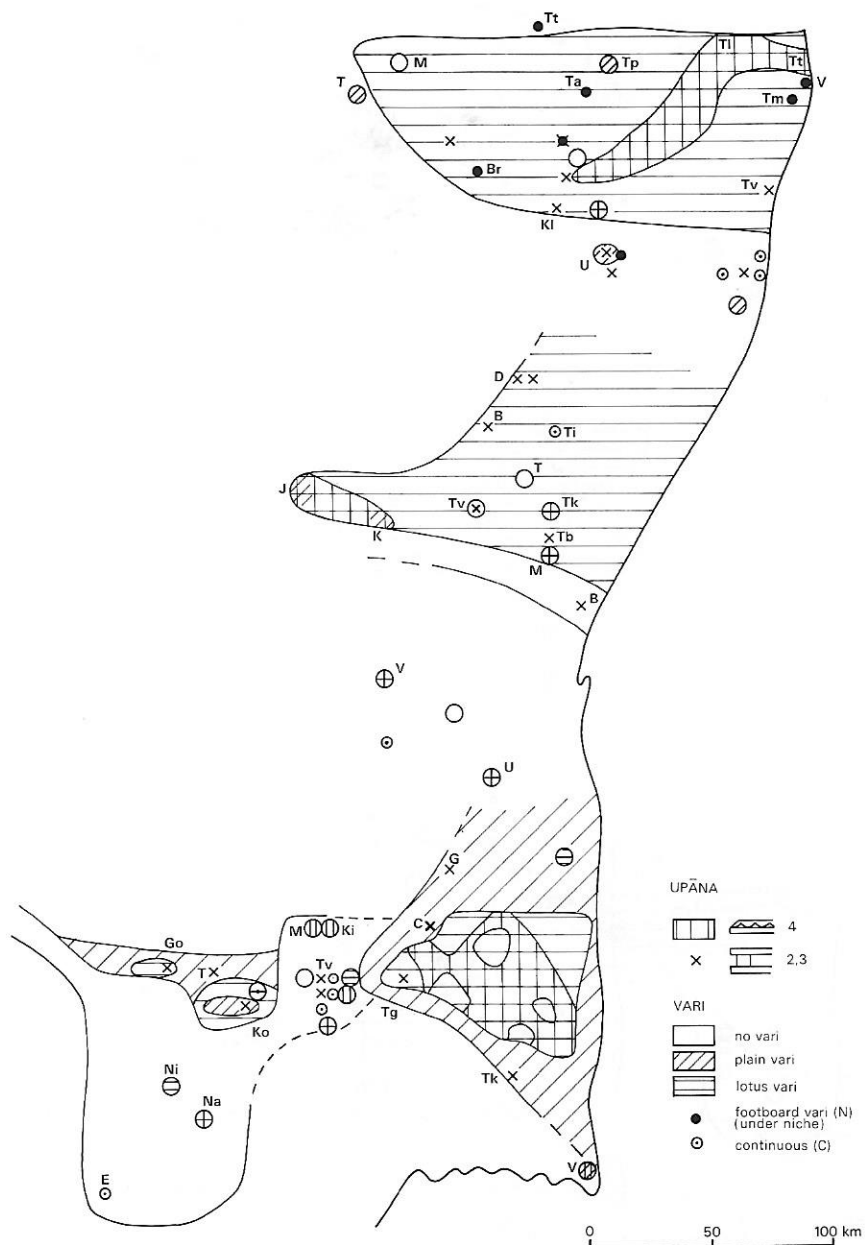
MAP 9

Distribution of the adhiṣṭhāna types.



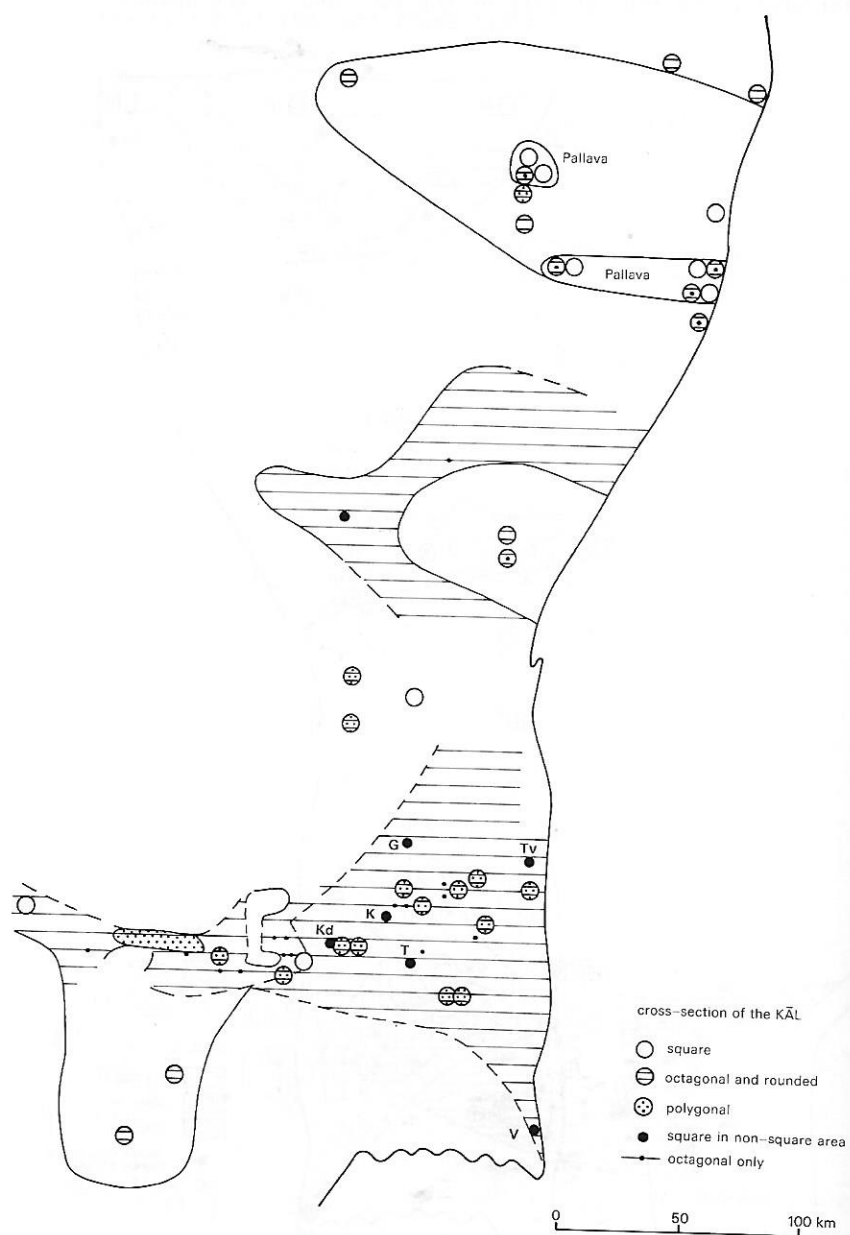
MAP 10

Distribution of the variants of the vari and the upāna.

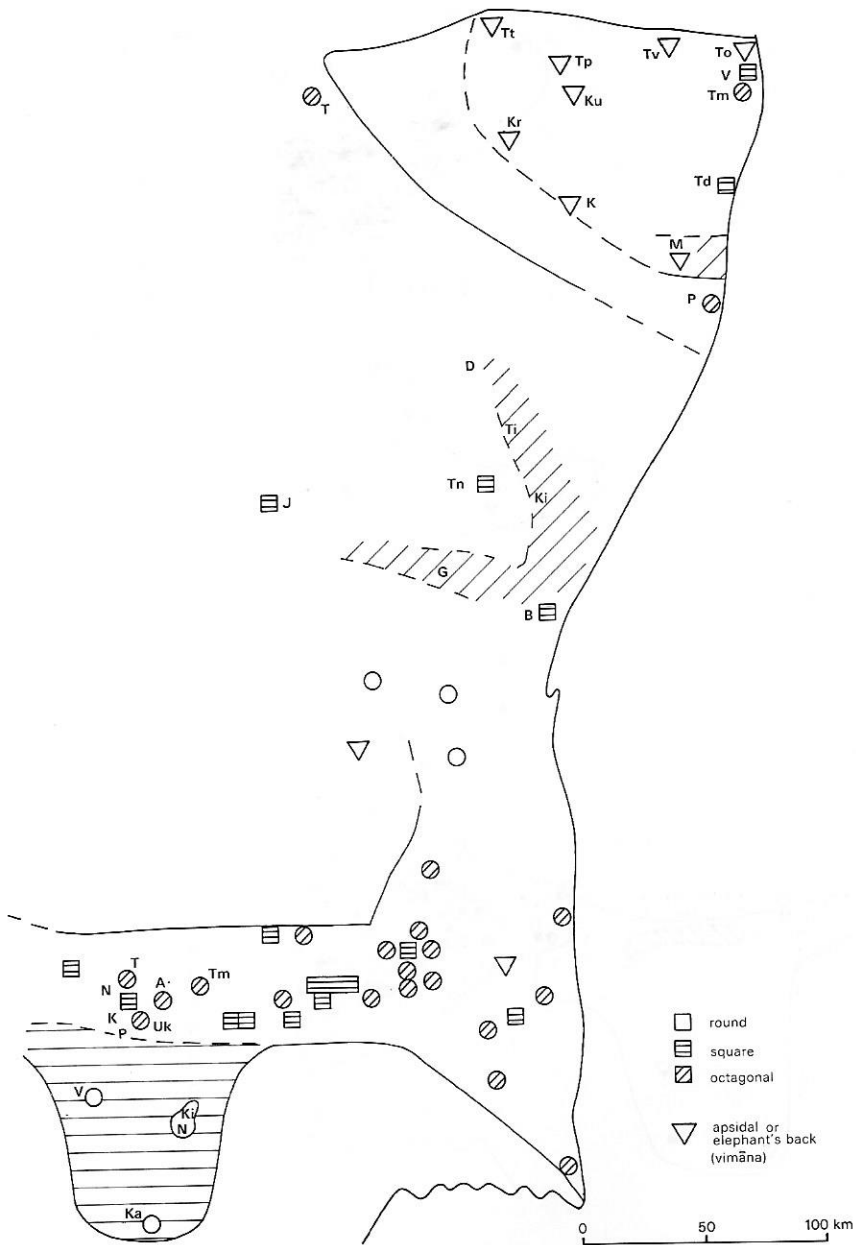




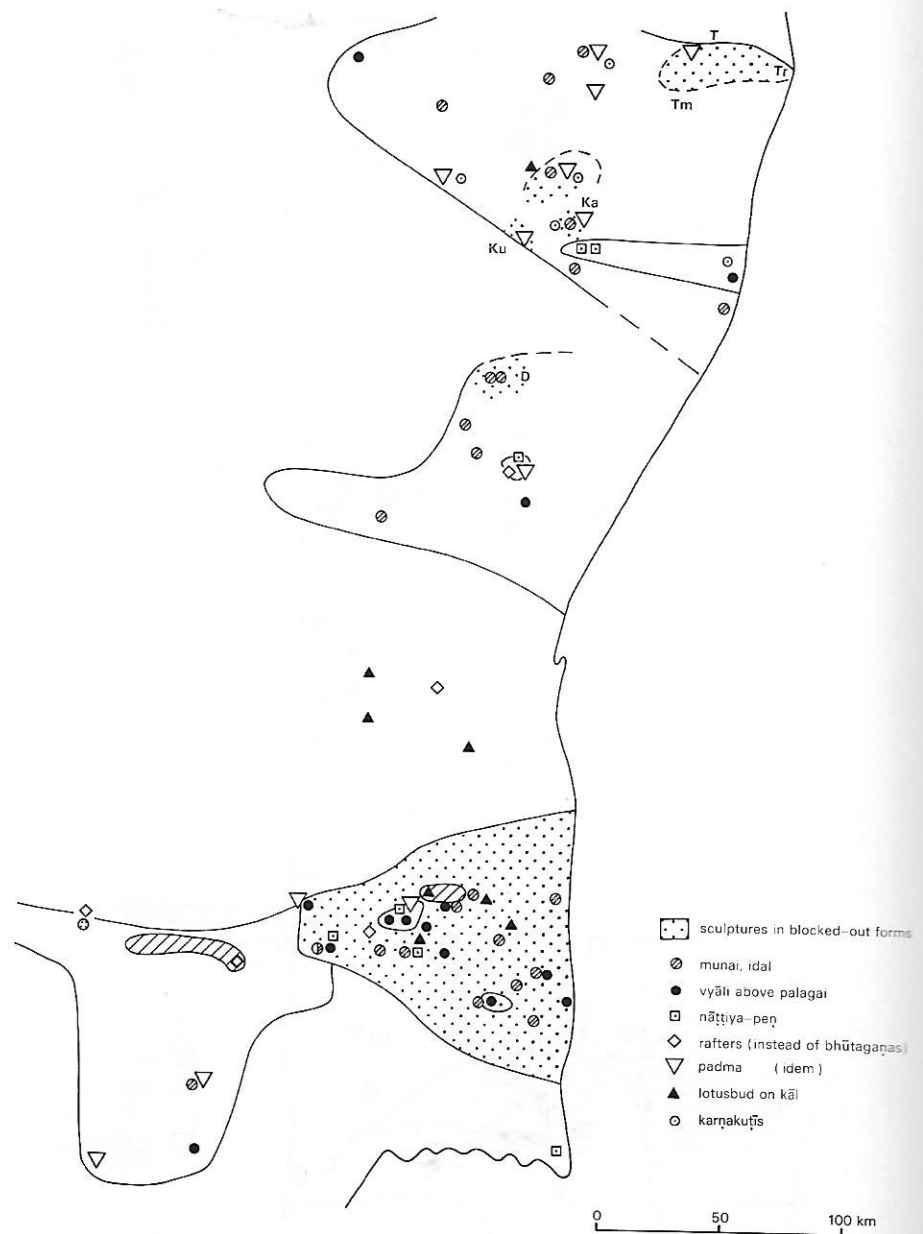
Map 11. Distribution of the variants of the  $k\bar{a}l$ .



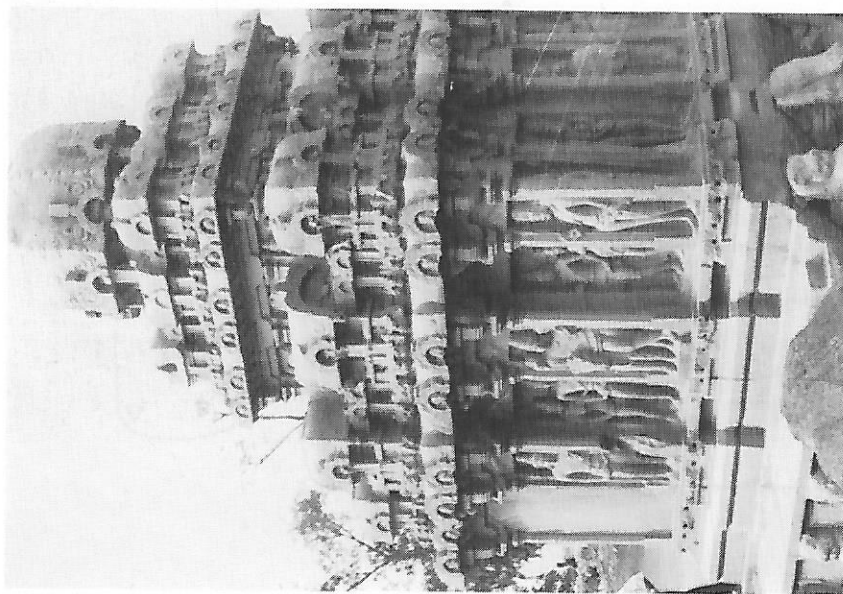
Map 12. Distribution of the variants of the śikhara.



MAP 13 Distribution of the munai, vyālis, nattyā-pens, lateral sculptures, rafters and lotus buds.



## Plates



Pl.1 Arjuna Rath, Māmallapuram. View from South-east.



Pl.2 Piravātaneśvara, Kāñcī. North wall.

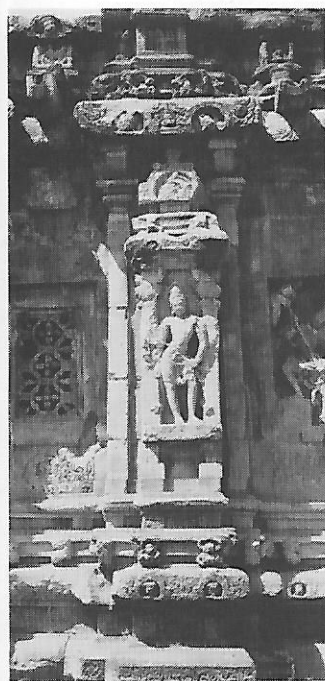




Pl. 3



Pl. 4



Pl. 5



Pl. 6

Pl. 3 Kailāsanātha, Kāñcī. Detail South wall.

Pl. 4 Shore temple, Māmallapuram. Detail adhiṣṭhāna.

Pl. 5 Virūpākṣa, Paṭṭadkal. Detail of pañjara.

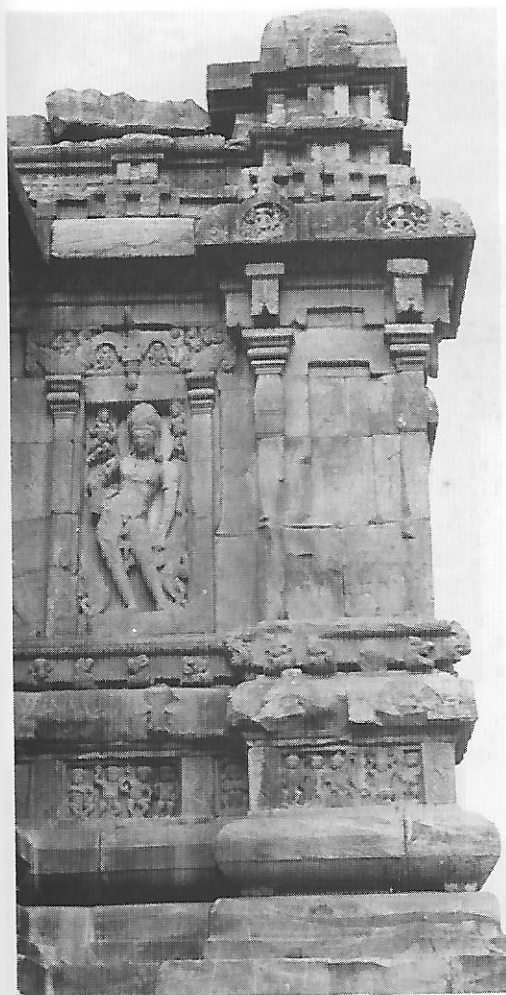
Pl. 6 Virūpākṣa, Paṭṭadkal. East wall.



Pl.7 Sangameśvara, Paṭṭadakal South wall. Sculptures framing trellised windows; cut-out niches; purely decorative "pilasters".



Pl.8 Mālegiṭṭi Śivālaya, Bādāmī. View from East. Note hāra extending over mukhamāṇḍapa; karṇakūṭis on grīvā platform directly connected to śikhara.



Pl.9 Mālegiṭṭi Śivālaya, Bādāmī.  
Niche in mukhamāṇḍapa. The  
tripaṭṭa kumuda is basically  
round; a slightly curved jagatī  
ending in a vertical fascia;  
uninterrupted vari immediately  
above frieze of vyālis which  
are spaced regularly. (cf. Pls.  
38d, 55b).

Pl.10 Nakkalaguḍi, Biccavolu.  
West wall. Adhiṣṭhāna with  
kapota and tripaṭṭa kumuda  
under central bay, vṛṭṭa  
kumuda elsewhere; cut-out  
niches; decorative niche  
pilasters, type of makara  
toraṇa and vari uninterrupted  
running along hāra are  
comparable with those shown  
in Pl.9; no vari above the  
base. (cf. Pls. 23-26).







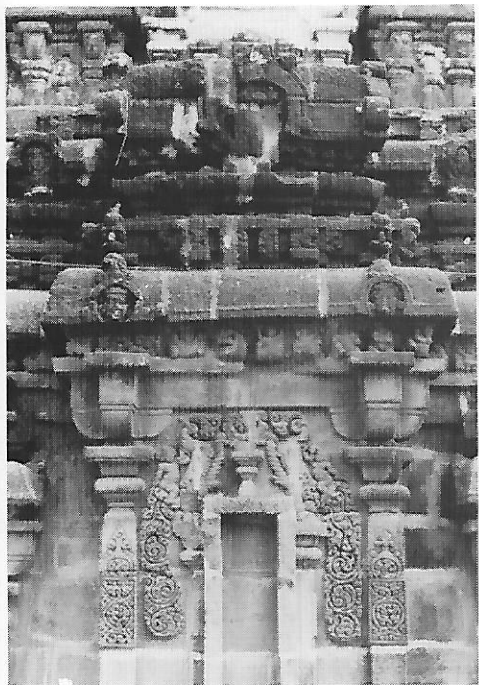
Pl.11 Temple outside village, Biccavolu. East wall. Central niche flanked by two pañjaras being part of the wall and the hāra (Note the elongated śālā).

Pl.12 Rājarājesvara, Biccavolu. South-east view. Adhiṣṭhāna with kapota, three types of kumudas: multi-bevelled, vṛtta and tripaṭṭa.



Pl.13 Rājarājesvara, Biccavolu. Detail West wall: niche. (Note the absence of a vari).





Pl.14 Candrasekharasvamin, Biccavolu. Detail West wall: niche with makaratoṛaṇa, kapota and śālā.

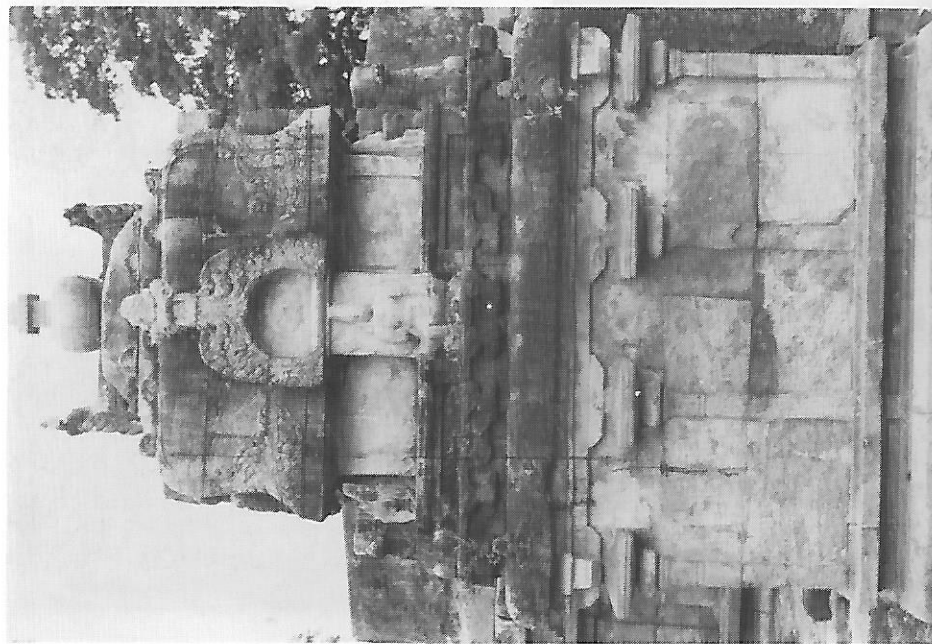


Pl.15. Candrasekharasvamin, Biccavolu. Detail of pañjara.



Pl.16 Goliṅgeśvara, Biccavolu. Detail of South wall: tripattakumuda under the central niche, a vṛṭṭa kumuda under the other parts, a small ogeed moulding under the kumuda, pañjaras capped by kūḍus.





Pl. 17 Marundhayeśvara, Viśālūr. West wall. Note  
prabhavali.



Pl. 18 Agastyeśvara, Pāṅgudi. Detail Prastara,  
prabhavali, śikhara.

Pl.19a Amman shrine in the compound of the Gaṅgaikoṇḍacoleśvara, Gaṅgaikoṇḍacolapuram. View from South-west. Note high upāna and T-shaped podigai.



Pl.19b Amman shrine in the compound of the Gaṅgaikoṇḍacoleśvara, Gaṅgaikoṇḍacolapuram. South wall. Note kumbhapañjaras, image of standing Ganeśa in niche of antarāla; three niches in ardhamandapa, lateral niches covered with kapotas instead of makaratoranas.



Pl.20a Gaṅgaikoṇḍaśvara, Kūḷambandal. South wall. Building consists of a vimāna, antarāla, ardhamandapa, second antarāla and mukhamandapa. Note karṇakuṭīs on grīvā platform, canopy above image of Dakṣiṇāmūrti; kapota on every part of hāra.



Pl.20b Gaṅgaikoṇḍaśvara, Kūḷambandal. Detail of North wall. Note high upāna, drup-like podigai, lateral niches and bell-shaped kapota.

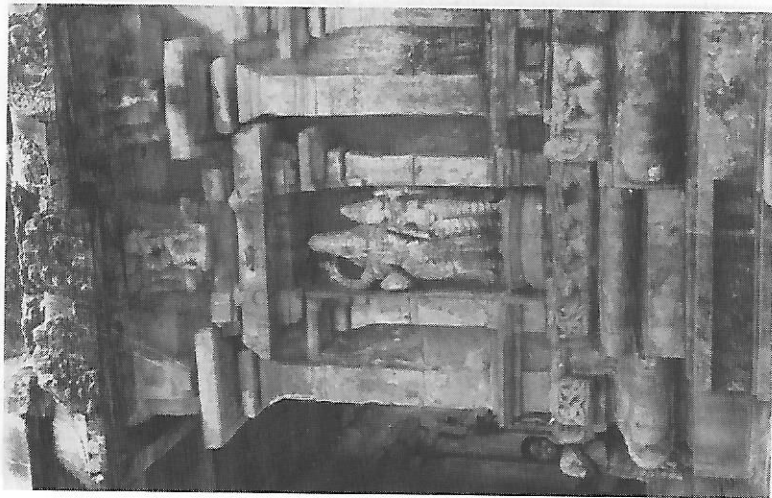




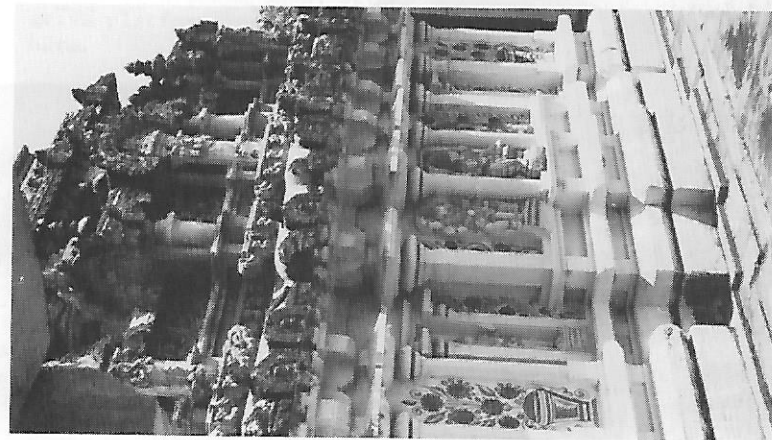
Pl.21a Vāliśvara, Tiruvāliśvaram.  
Detail superstructure. Note  
full-fledged grīvā niche,  
vertical fascia of kapotas,  
friezes of running animals,  
kūdus with inner circle  
above vertical fascia of  
kapota, siṃhamukhas and  
rosettes crowning kūdus.



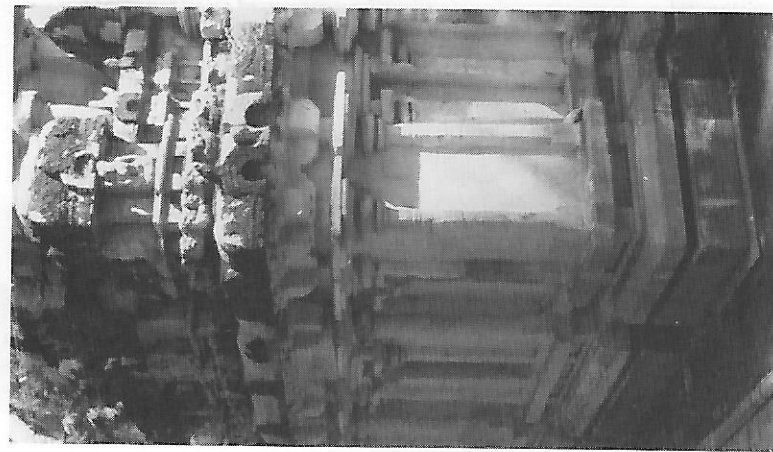
Pl.21b Vāliśvara, Tiruvāliśvaram. Detail makaratoraṇa.



Pl. 22 Amman shrine, Gaṅgaikoṇḍaḷapuram. Note raised border of circles on kapota; T-shaped potigai, lotus upāna as well as high upāna under ardhamaṇḍapa niche (cf. pañjaras Pls. 37, 38a).

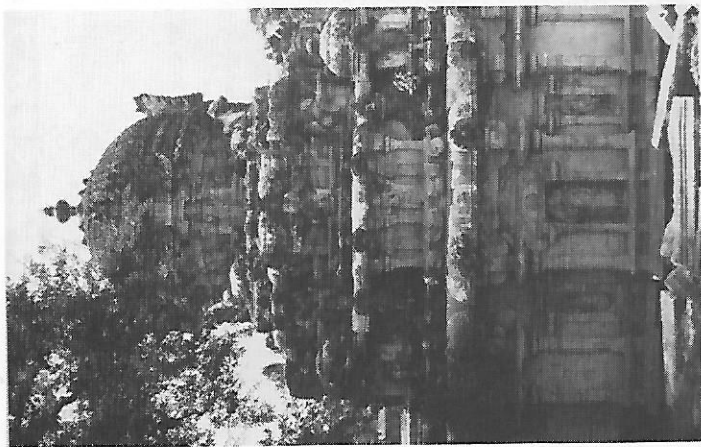


Pl. 23 Āpatsahāyēśvara, Tiruppalanāṁ. Pl. 24 Chīta-sthānēśvara, Tiklaisthānam. West wall. Note lateral niches cut-out central niche, round pilaster-pair in śālā wall.

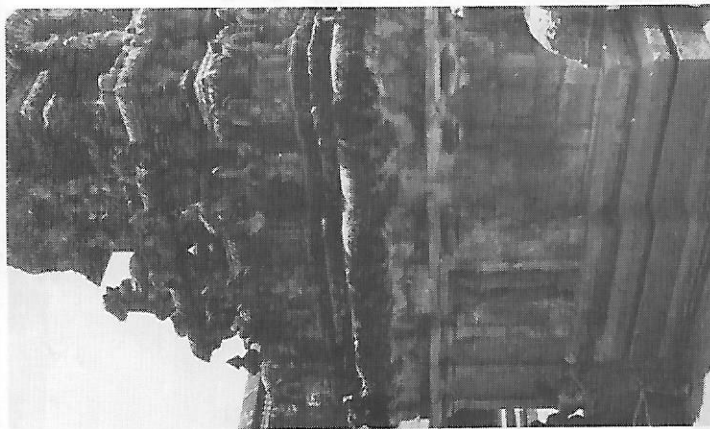


Pl. 24 Chīta-sthānēśvara, Tiklaisthānam. West wall. Note lateral niches without makatorapaṇas, two tiny pañjaras between karṇakūṭis and śālā, round-pilaster-pair on wall of 2nd tala partly hidden behind hāra.

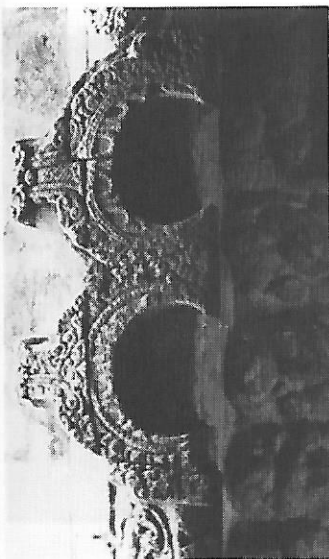




Pl. 25 Vedapurīśvara, Tiruvēdikkudi.  
North wall. Note lateral niches,  
well developed makaratoraṇa, pañ-  
jaras in śālā wall, dvārapālas  
flanking śālā on 2nd tala.



Pl. 26 Odavaneśvara, Tiruchchatturai.  
West wall. Note lotus upāna,  
clumsy makaratoraṇa, round pil-  
aster-pair on wall of 2nd tala.



Pl. 27a Pañcanādiśvara, Tiruvaiyāṇū.  
Kudas and bhūtagaṇas.



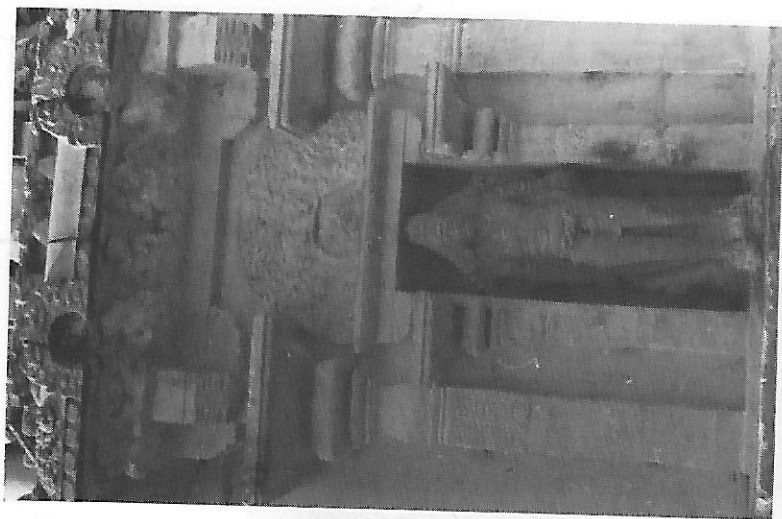
Pl. 27b Pañcanādiśvara, Tiruvaiyāṇū.  
Detail podigai. Note absence  
of groove; kapota.



Pl. 28 Viraṭaśeśvara, Tirukkandiyūr. North wall. Note makaratorāṇas dvārapālas flanking protruding section of 2nd tala, śālā as tall as karnakūṭis (cf. Pl. 25).



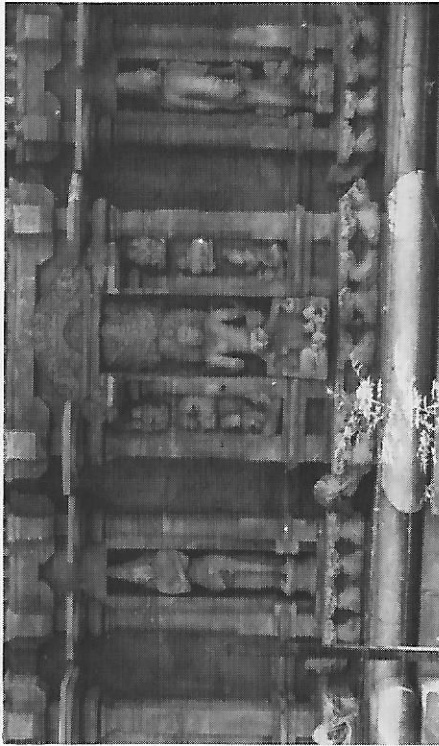
Pl. 29a Puṣpavaneśvara, Melatiruppūdurutti. North wall. Note prapāla partly in upāna, partly in jagatī.



Pl. 29b Puṣpavaneśvara, Melatiruppūdurutti. Niche in North wall. Note lintel decorated with lotus-petals and tiny podigais between lintel and virakanṭha, groove in throated podigai.



Pl. 30 Nāgeśvara, Kumbakonam. West wall. Note lateral niches with tiny makaratoranas, position of worshippers.



Pl. 31a Koranganātha, Srīnivāsanallūr. South wall. Note protruding sections flanking central niche and sculptures on either side of Dakṣiṇāmūrti (cf. Pl. 3).



Pl. 31b Koranganātha, Srīnivāsanallūr. Detail south wall. Original, cut-out niche, is too small to contain image of Bhikṣaṭānamūrti.





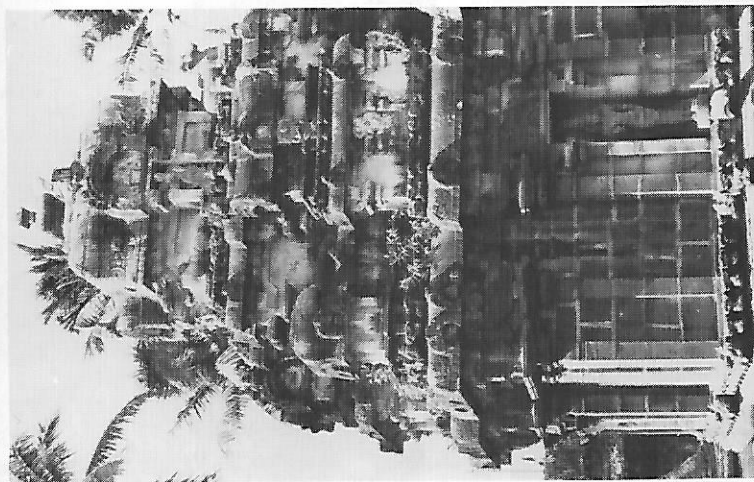
Pl. 31c Koranganātha, Srīnivāsanallūr. West wall.



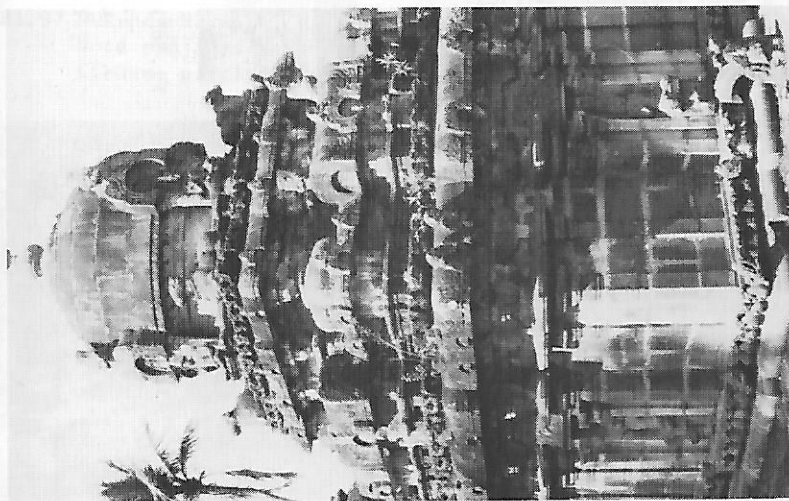
Pl. 32 Saptarṣiśvara, Lalgudi. North wall vimāna, antarāla and ardha-maṇḍapa. Note prajāla in upāna.



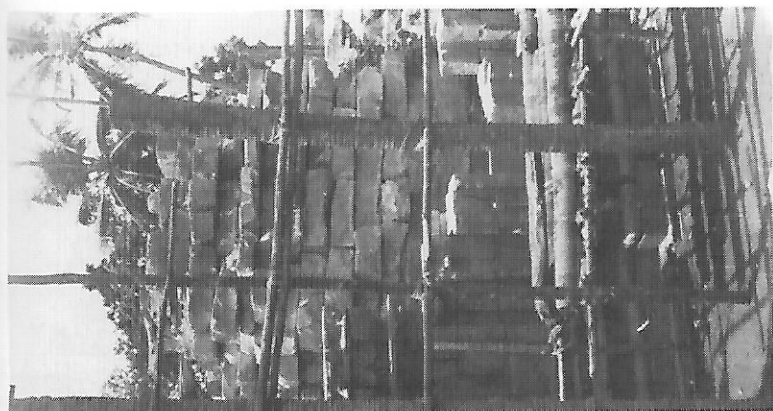
Pl. 31d Koranganātha, Srīnivāsanallūr. Detail makaratoraṇa and uttira. Note tiny, brick rafters instead of bhūtagaṇas.



Pl. 33a Agastyesvara, Kilaiyūr. North wall. Note size of śālā with kapota but without vari (cf. Pl. 25).

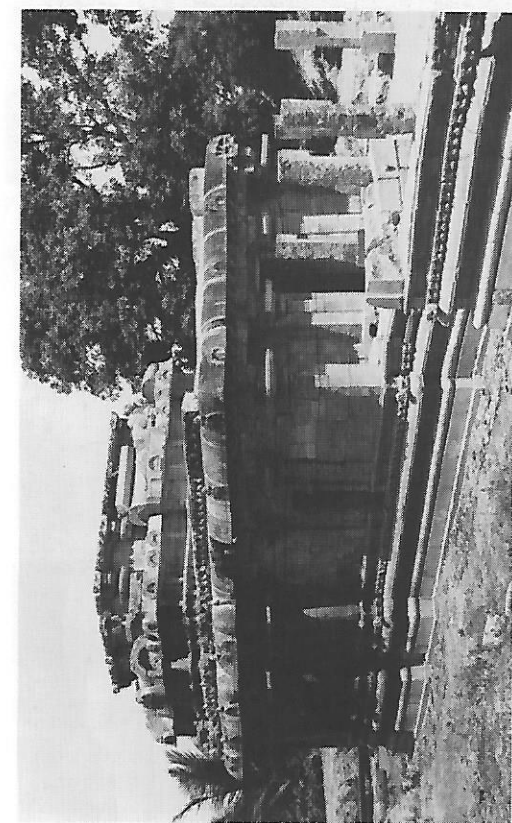


Pl. 33b Colesvara, Kilaiyūr. North wall. Note size of śālā (cf. Pl. 33a) with vari interrupted by niche.



Pl. 34 Sādayar Koyil, Tiruchchen-nampūṇḍi. Before restoration.

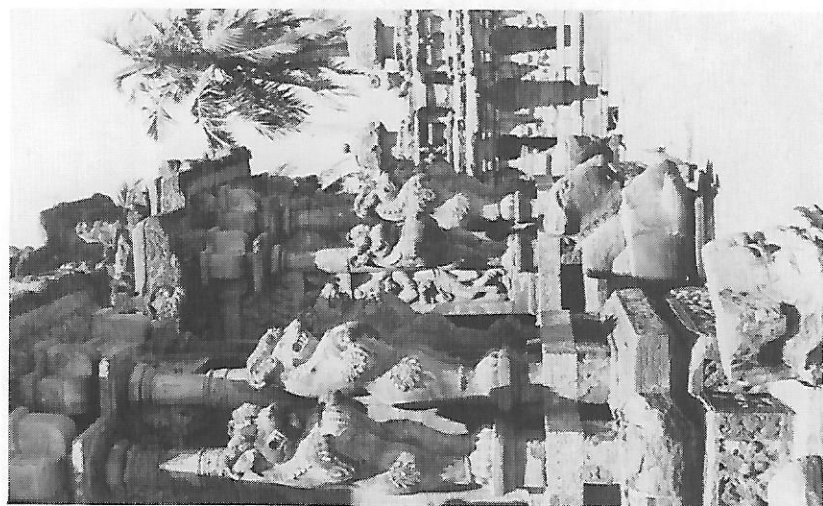




Pl. 35 Śaḍayar Koyil, Tiruchchennampūṇḍi. After restoration  
View from South-east.



Pl. 35b Śaḍayar Koyil,  
Tiruchchennampūṇḍi.  
Detail of outer prakāra walls.



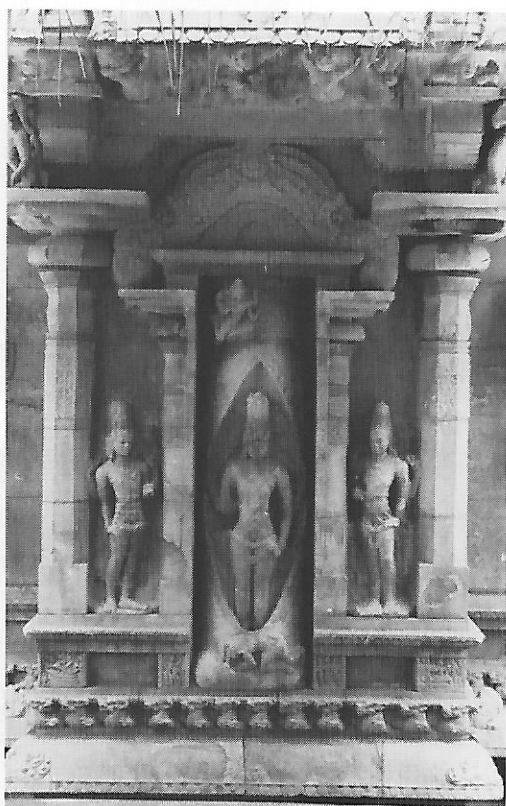
Pl. 36 Kailāsanātha, Kāñcī. Shrines  
along outer prakāra walls.  
Note panjaras in hāra of 1st  
tala.



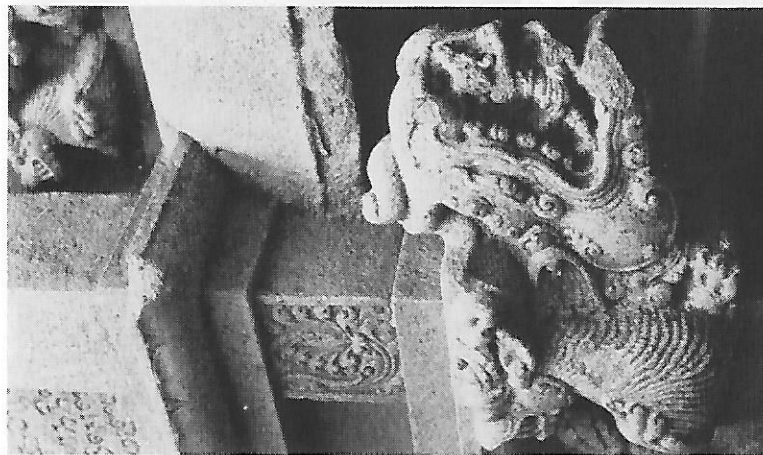
Pl. 37 Mukunda Nayanar, Māmallapuram. Superstructure.  
Note pañjaras and vari interrupted by them.  
Śikhara partly demolished.



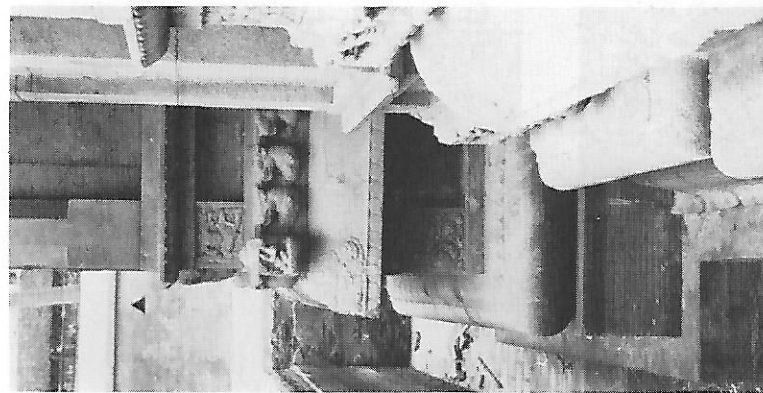
Pl. 38a Brahmapurīśvara, Pullamaṅgai.  
View from South-west.



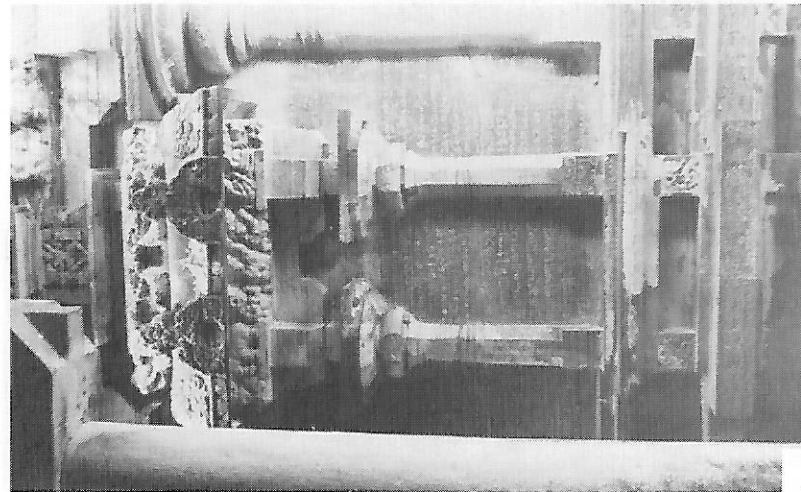
Pl. 38b Brahmapurīśvara, Pullamaṅgai. West  
wall. Brahmā and Viṣṇu on either  
side of niche containing image of  
Liṅodbhava.



Pl. 38c Brahma Purīśvara, Pullamaṅgai. Detail of adhiṣṭhāna of pañjara. Its vari remains under vyāli frieze of main building.

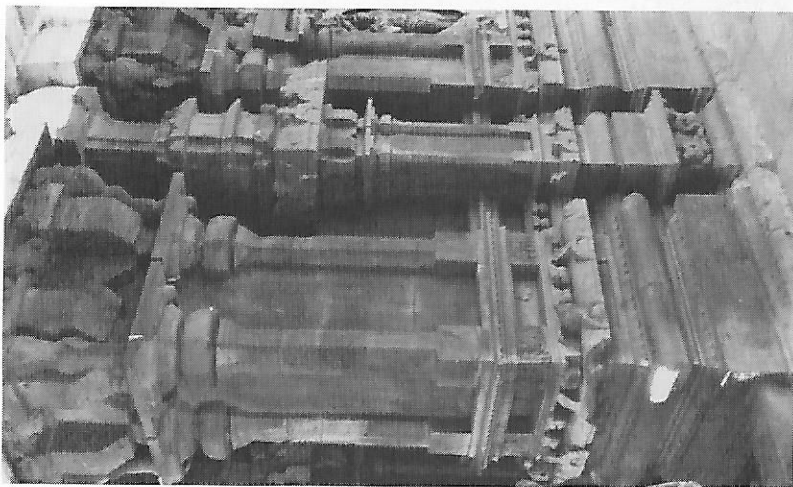


Pl. 38d Brahma Purīśvara, Pullamaṅgai. Adhiṣṭhāna of vimāna and pañjara. Note lotus jagati of pañjara.

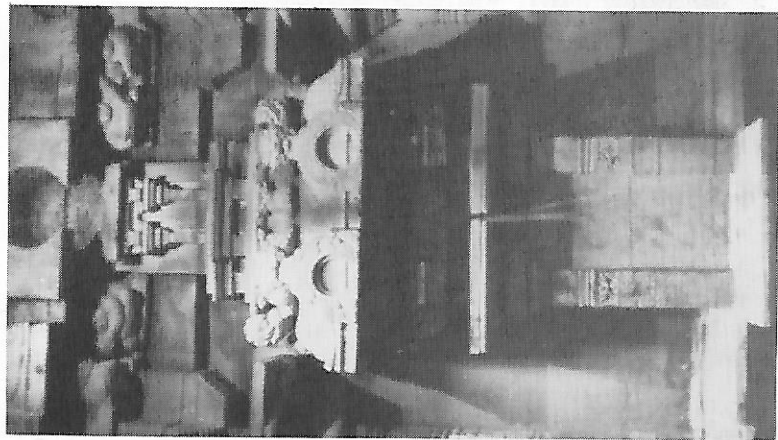


Pl. 39 Pipīśvara, Tiruverumbūr. Detail pañjara.

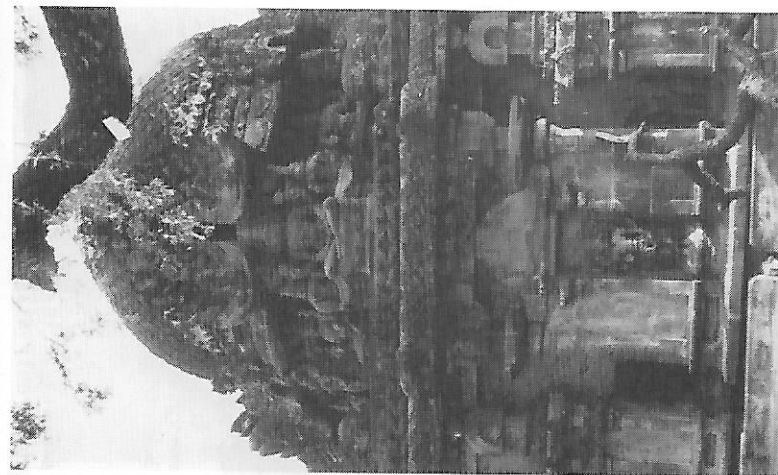




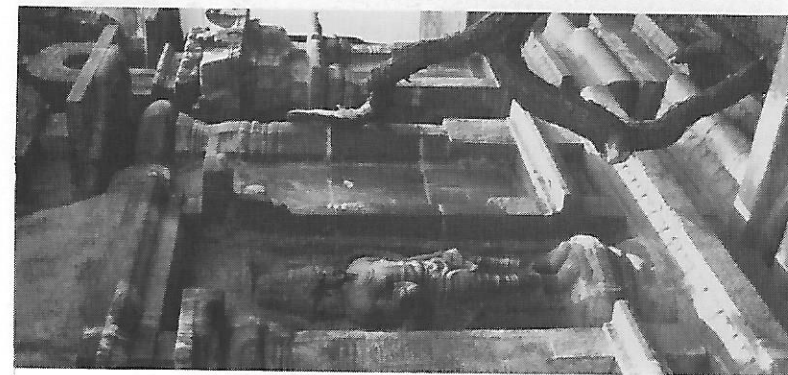
Pl. 40 Sāksīśvara, Tiruppurambyam. View from North-west. Note pañjara, its remarkable plinth consisting of bhūtagaṇas on lotus moulding.



Pl. 41 Gomukteśvara, Tiruvādūtūrai. Detail pañjara.



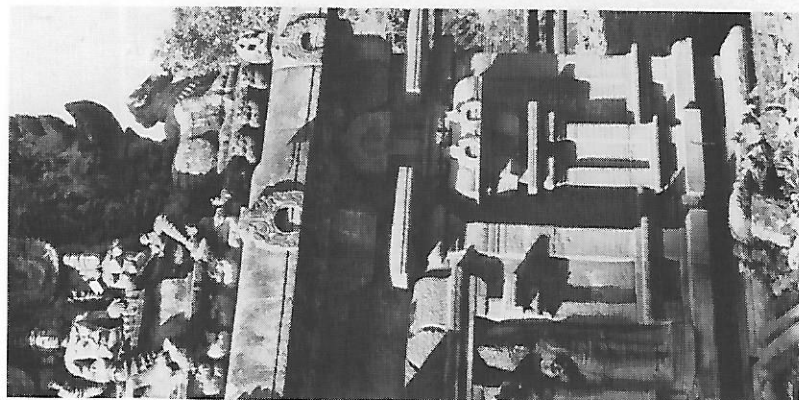
Pl. 42a Vasīṭṭeśvara, Karandai. North wall. Note pañjaras, cut-out niches to the right of Brahmas and sculptures without niches to the left of Brahmas.



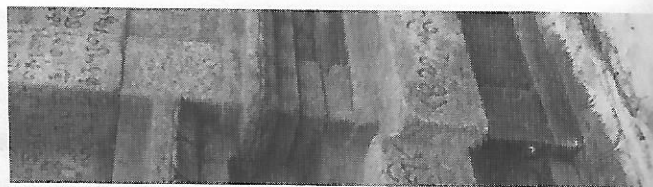
Pl. 42b Vasīṭṭeśvara, Karandai.  
Detail North wall.



Pl. 43a Jñānaparameśvara, Tirumayānam  
West wall. Note pañjaras  
without adhiṣṭhāna.

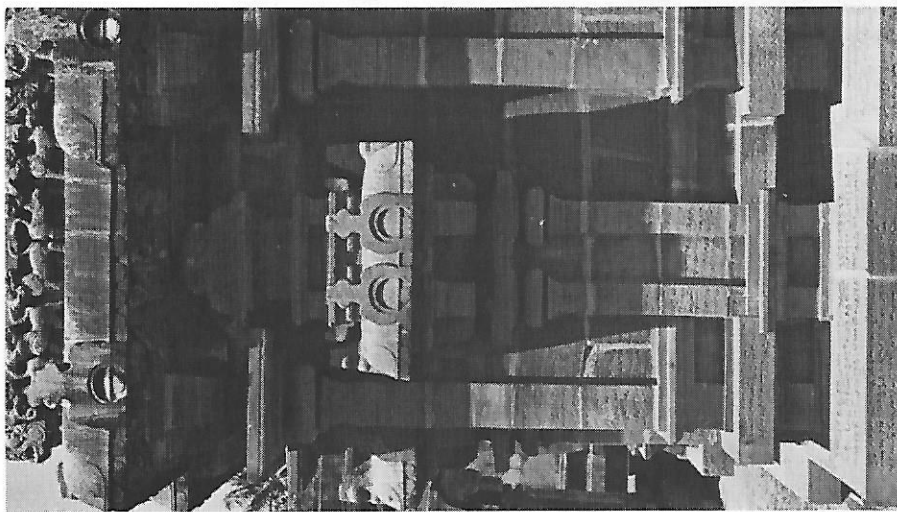


Pl. 43b Jñānaparameśvara, Tirumayānam.  
North wall. Note prañāla in  
kumuda.



Pl. 43c Jñānaparameśvara, Tirumayānam. Note paṭṭikā of pañjara. It is almost  
in line with that of main building. Kañṇa protrudes only slightly.

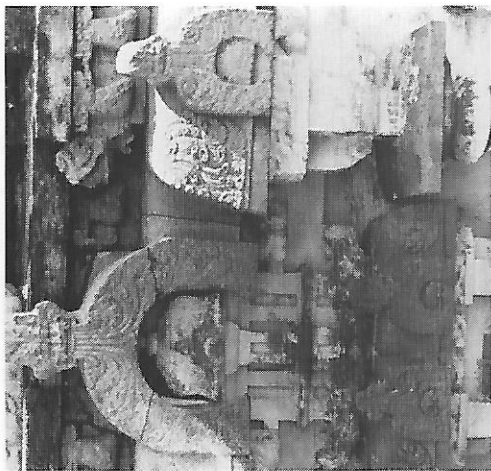




Pl. 44 Matsyapūrīśvara, Kōyildēvarāyanpēṭṭai. West wall. Note pañjara crowned by a lotus, inscriptions on the entire wall as well as kapota.



Pl. 45a Viṣamaṅgaḷeśvara, Tudaiyūr. West wall.



Pl. 45b Viṣamaṅgaḷeśvara, Tudaiyūr. Detail pañjara. Note its large kūdu.



Pl.51 Tirutiṇḍīśvara, Tiṇḍivanam. North wall. Note small pañjaras on either side of central niche.

Pl.52a Kundavai Vinnagar Alvar, Dadapuram. View from North-west. Ground-plan and number of talas resemble those of the shrine at Pul-  
ḷamaṅgai (cf. Pl. 38a).



Pl.52b Kundavai Vinnagar Alvar, Dadapuram. Detail panjara: kumbha between pilasters.



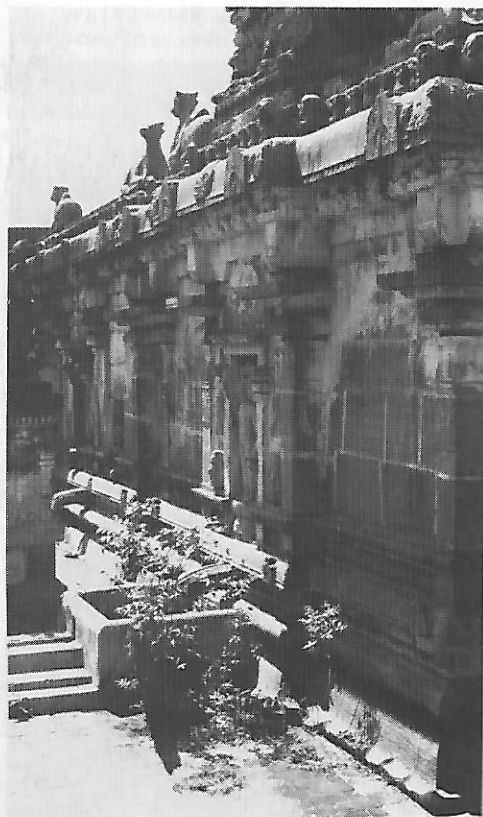
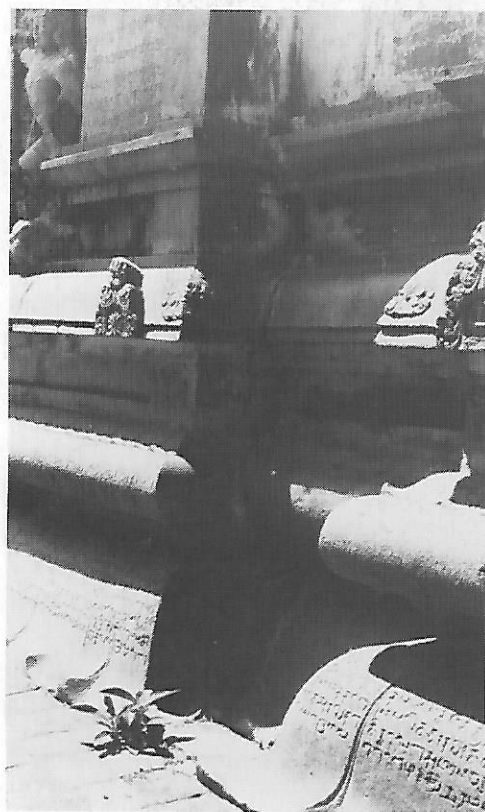
Pl.53 Madhuvaneśvara, Tirukkaḷavūr.  
Detail kapota over ardhamanḍapa.



Pl.54 Vedapurīśvara,  
Tirukkaliṭṭattai.  
South wall.



Pl. 55a Gaṅgājaṭādhara, Gōvīṇḍaputtūr.  
North wall. Cf. relatively  
simple appearance of this  
"citizen" koyil with that of  
a royal monument as shown in  
Pl.62a dating from about the  
same period.



Pl.55b Gaṅgājaṭādhara, Gōvīṇḍaputtūr.  
Detail connection vimāna to  
ardhamandapa(false antarāla).  
Note cut-out niche in ardha-  
mandapa containing image of  
Kālārimūrti. This niche cuts  
though inscriptions mentioning  
regnal years of Parāntaka I.  
Since the Kālārimūrti image  
might date as late as the days  
Rājarāja I, it looks as if we  
are confronted with a situation  
in which copied records of Pa-  
rāntaka on a shrine attributed  
to Uttama Coḷa's reign have  
been mutilated(again?) during  
Rājarāja's rule.



Pl.56 Ādimouliśvara, Tiruppalturai. North wall.  
 Śikhara redecorated in modern times.  
 Example of a koyil built with small means.  
 (Measurements are out of proportion. The size  
 of the vimāna allows for a superstructure of  
 two storeys. This is obvious when a triangle  
 is drawn in which  $H:W=1:1$ . As it is now,  
 the top of the śikhara as well as its stūpī  
 remain far under that limit. The height of  
 the roof seems to adapt itself to the number  
 of pilasters which permit only an ekatala  
 construction, cf. Fig. 22a, p. 86)





Pl.57b Pañcanādiśvara, Alūr. North wall. Note lotus jagatī under central part of vimāna and under the entire ardhamandapa.

Pl.58a Agniśvara, Tirukkāṭṭuppallī. View from North-west.



Pl.57a Pañcanādiśvara, Alūr. View from South-east.



Pl.58b Agniśvara, Tirukkāṭṭuppallī. Cut-out niche in central projection of vimāna wall.



Pl.59 Airāvateśvara, Nemam. View from South-west. Note large dvārapāla on wall of 2nd tala (cf. Pls. 25 and 28).



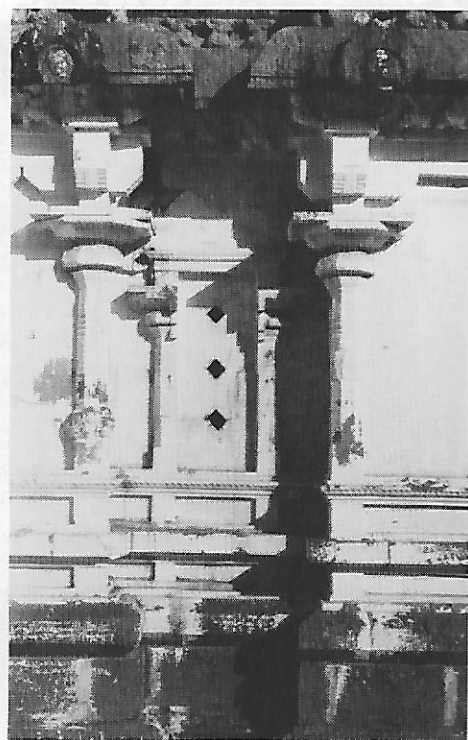
Pl.60b Naltunai Īśvara, Puñjai. Niche of Agastya.



Pl.60a Naltunai Īśvara, Puñjai. South wall. Protruding shrine is a later addition; original vimāna has a square ground-plan.



Pl.61a Anāntheśvarasvāmin, Uḍaiyārgudi.  
View from South-east.



Pl.61b Anāntheśvarasvāmin, Uḍaiyārgudi.  
Detail false antarāla with niche  
and lozenge-shaped holes. Note  
decoration of pilaster showing a  
goose-shaped protruberance above  
square base of kāl.

For Pls.62-64 see pp. 457-459.

Pl.65a Śiva koyil, Pēraṅgiyūr. View from North-west. Note asymmetrical position  
of niche and absence of one full-fledged pilaster to the right of niche  
in wall of ardhamandapa. (For Pl.65b, see p.460).





Examples of the Śembyan Mahādevī style  
(Pl.62 A.D.969-985)



Pl.62a Rāmanātheśvara, Tiruvirāmeśvaram.  
North wall.



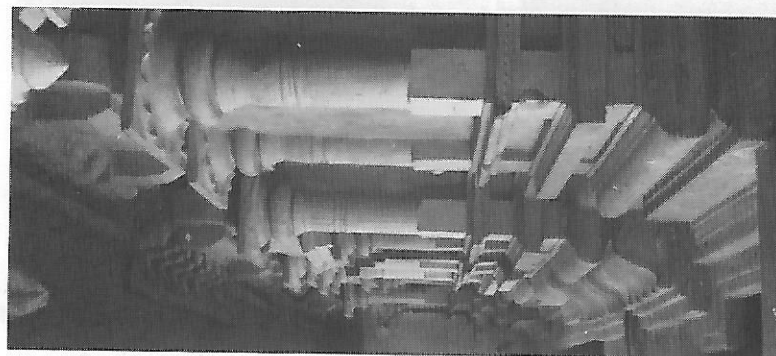
Pl.63a Amṛtagheśvara,  
Tirukkaḍaiyūr.  
East wall. Note  
four contours in  
one and the same kāl.



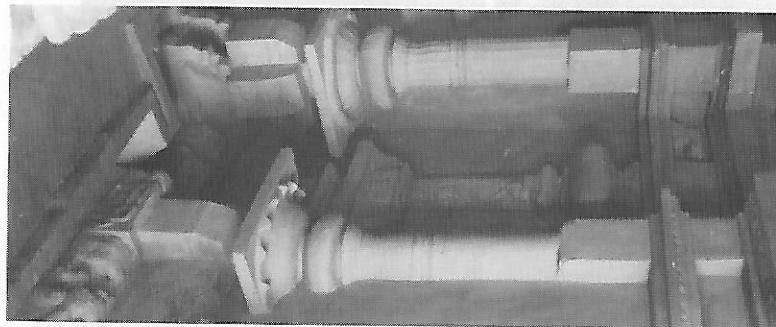
Pl.62b Kṣetrapāladeva, Tiruvalaṅguḷi. North wall.



Pl. 63b Amṛtaghateśvara, Tirukkadaiyūr.  
Detail devakoṣṭha (L) and blind  
niche (R).



Pl. 63c Śrī-Kapardīśvara,  
Tiruvalaṅguli.  
North wall. Note  
rafters above  
central bay.

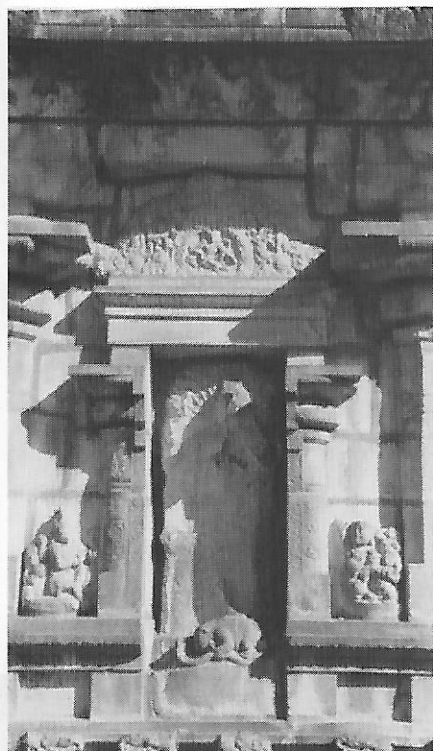


Pl. 63d Śrī-Kapardīśvara,  
Tiruvalaṅguli.  
Detail kumbha-  
pañjara.

Examples of the Śembyan Mahādevī style  
(Pl. 63 A.D. 985-1000)



Examples of the Śembyan Mahādevī style  
(Pl.64 A.D.1000-1012).

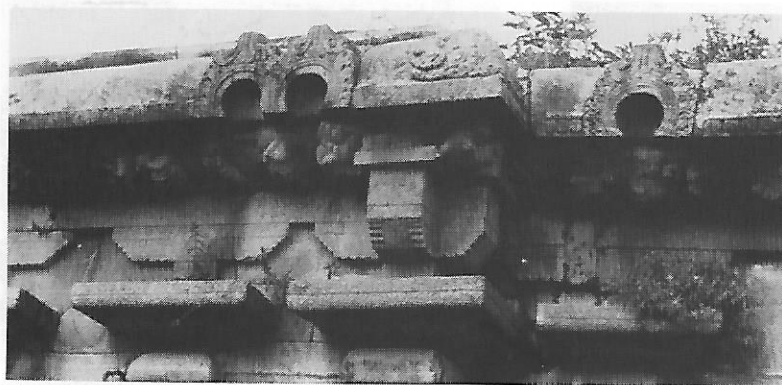


Pl.64b Uttara Kailāsa, Tiruvaīyārū.  
Pañjara in wall of false  
antarāla. Note the super-  
fluous podigais between pil-  
asters and makaratoraṇa.



Pl.64a Uttara Kailāsa, Tiruvaīyārū.  
Detail niche in southern  
wall of ardhamandapa. Image  
of Natarāja completely  
mutilated.

Pl.64c Mihirārumeśvara, Tirumiyach-  
chūr. View from North-west.  
Note slightly raised po-  
sition of kūḍus.



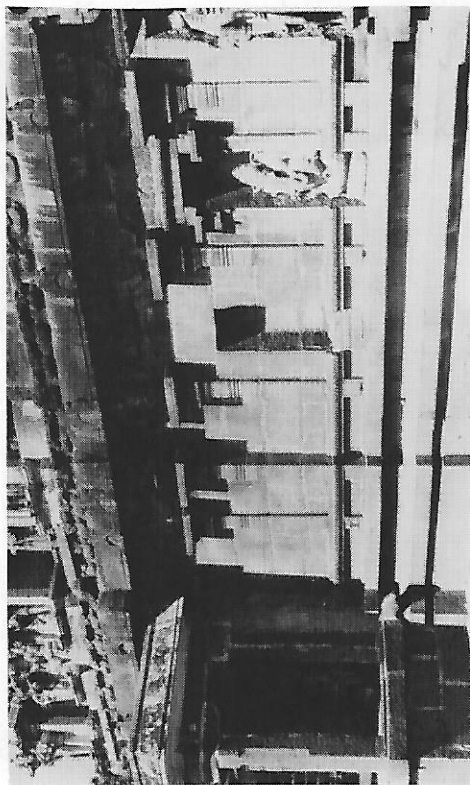
Pl.65b Śiva koyil, Pēraṅgiyūr. Detail connection  
vimāna to ardhamandapa. (For Pl.65a see  
p.456).

Pl.67 Candramoulīśvara, Tiruvakkarai.  
North wall vimāna. Note part of  
half-size niche pilasters (L) in  
wall of ardhamandapa (hidden  
from view by a pillar).



Pl.66 Abhirāmeśvara, Tiruvāmattūr.  
North wall vimāna.





Pl. 68a Pāñcanādiśvara, Tiruvāndārkōyil. Sout wall.  
Note complete frame of central niche in wall  
of ardhamaṇḍapa and cut-out niches of un-  
equal size.



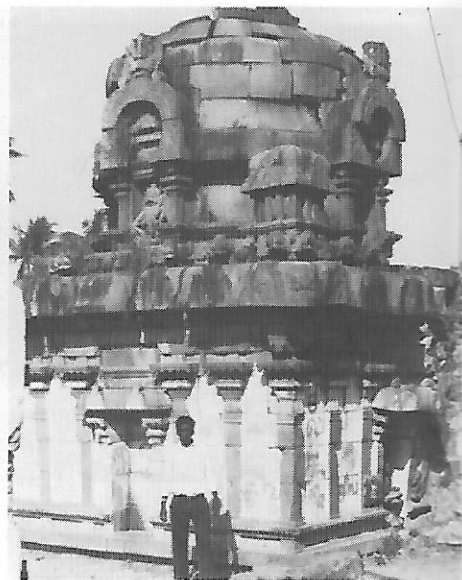
Pl. 68b Pāñcanādiśvara, Tiruvāndārkōyil.  
Cut-out niche containing image  
of Bhikṣaṣaṇamūrti which is too  
large.

Pl. 69a Tirutiṇḍiśvara, Tiṇḍivanam.  
Detail of adhiṣṭhāna and vari.





Pl. 69b Tirutiṇḍīśvara, Tiṇḍivanam.  
View from South-east. Note ab-  
sence of full-length pilasters  
in wall of ardhamandapa.



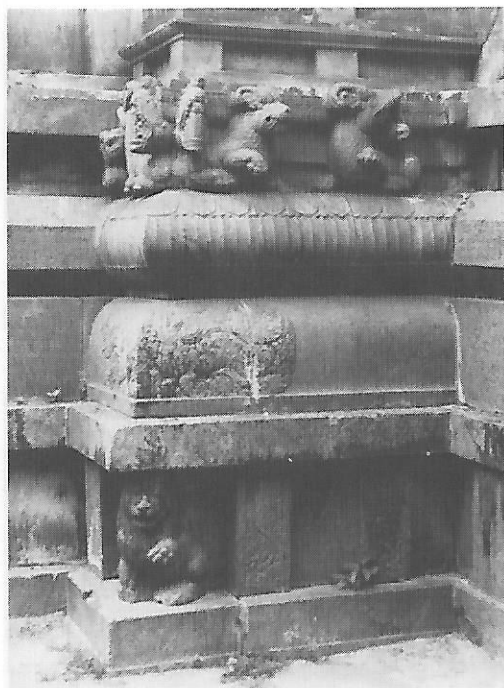
Pl. 71a Sokkeśvara, Kāñcī.  
View from South-west.  
(H:W=1:1 and 6 pilasters).



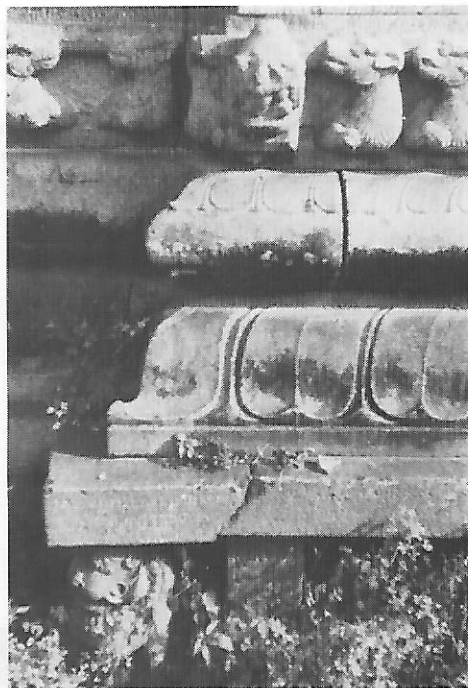
Pl. 71b Sokkeśvara, Kāñcī. Detail prastara.



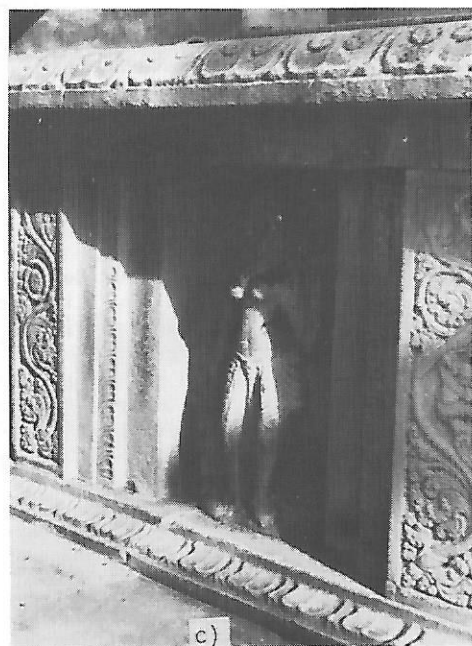
Pl. 70 Vīraṭṭaneśvara, Tiruttāni. South wall. Note  
footboard vari and absence of full-length  
pilasters in wall of ardhamandapa.



a)

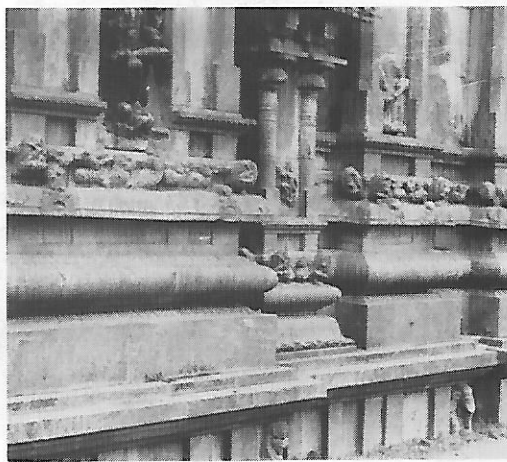


b)



c)

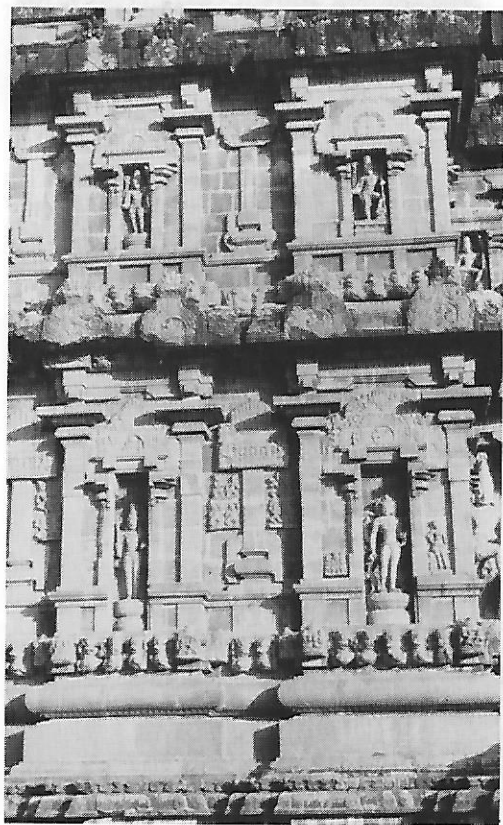
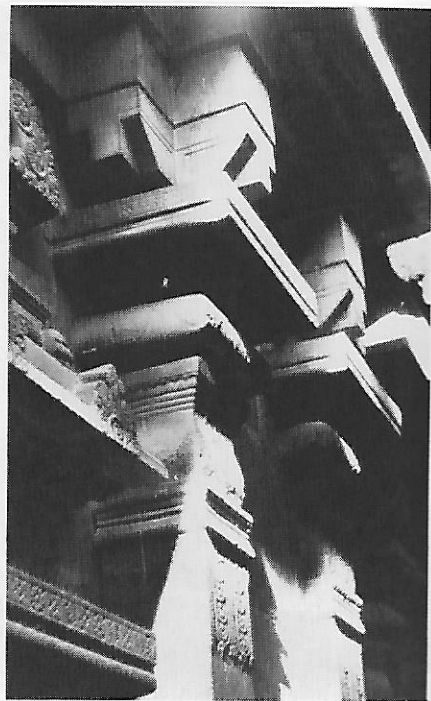
Pl. 72 Examples of an upāna. a) Sundara Varadarāja Perumal, Uttaramallūr; b) Kedareśvara, Uttaramallūr; c) Śrīmūlanātha, Bāhūr; d) Iruvikulamānīka Īśvara, Dadapuram.



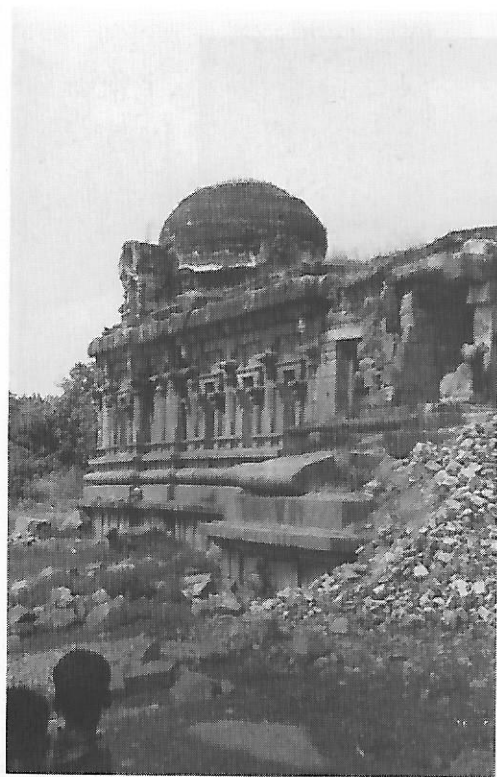
d)



Pl. 74 Śrī Masilamanīśvara, Tirumulaivāyil. Detail kumbhapañjara(L) and podigai. Note elegant decoration of pañjara. It covers a kūdu, kapota and palagai; all parts supported by one single pilaster.



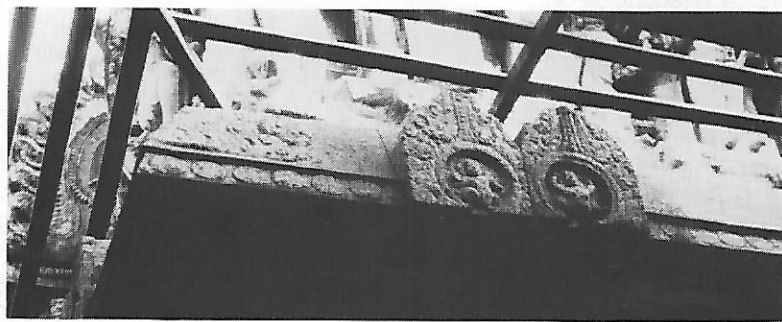
Pl. 73 Rājarājesvara, Tañjāvūr. Detail South wall vimāna. Novelty is kumbhapañjaras crowned with a kind of makaratorana; subbase decorated with a small kapota and vyāli frieze (partly visible); T-shaped podigai; predominance of square kāl; projecting blocks under lintel of which function is unknown (perhaps meant to be worked into some kind of shape); double kapota dividing wall into two parts. Note dvārapālas (R) which are flanking the four (!) entrances of the sanctum.



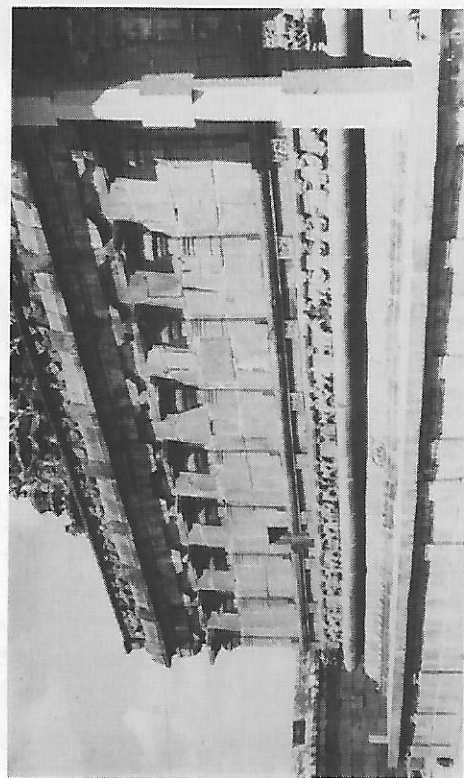
Pl. 75a Pātāleśvara, Brahmadēśam (S.A.).  
General view of South walls.  
Mukhamāṇḍapa (R) collapsed and  
śikhara of bricks.



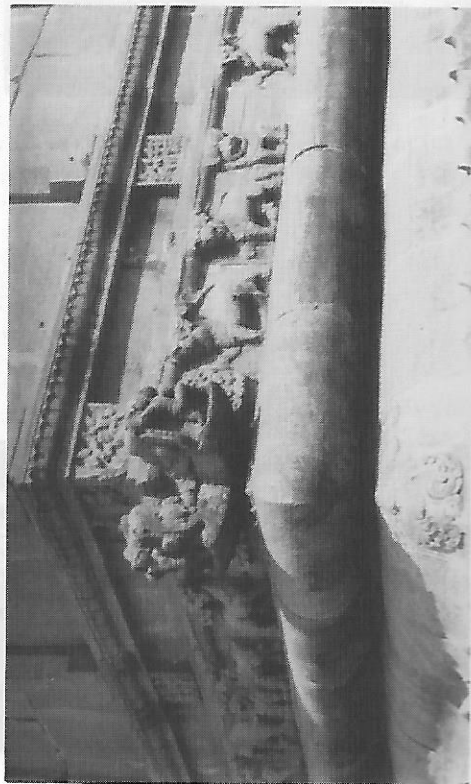
Pl. 75b Pātāleśvara, Brahmadēśam (S.A.).  
False antarāla. Note shape  
of kūdu: slit connects raised  
inner circle to vertical  
fascia of kapota (cf. Pl. 75b).



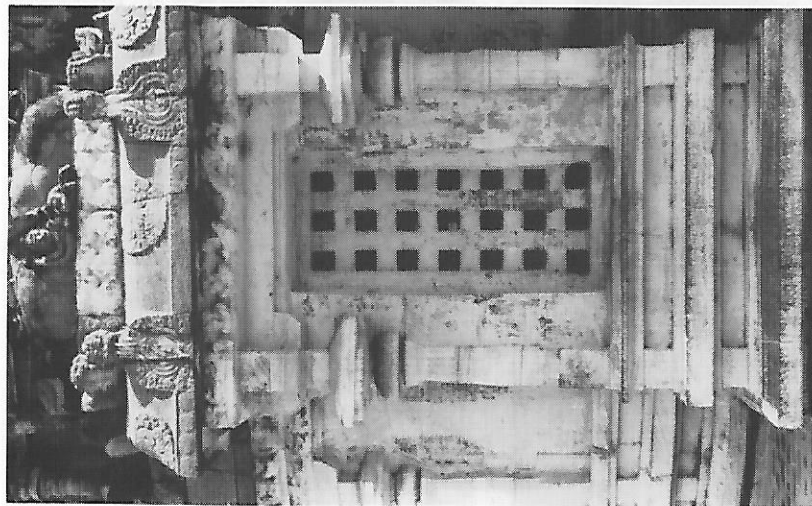
Pl. 75c Vṛddhagiriśvara, Vṛddhāchalam. Detail kapota. Note  
shape of Early Coḷa kūdu (cf. Pl. 75a).



Pl. 76a Varadarāja Perumal, Tribhuvana. General view South wall.

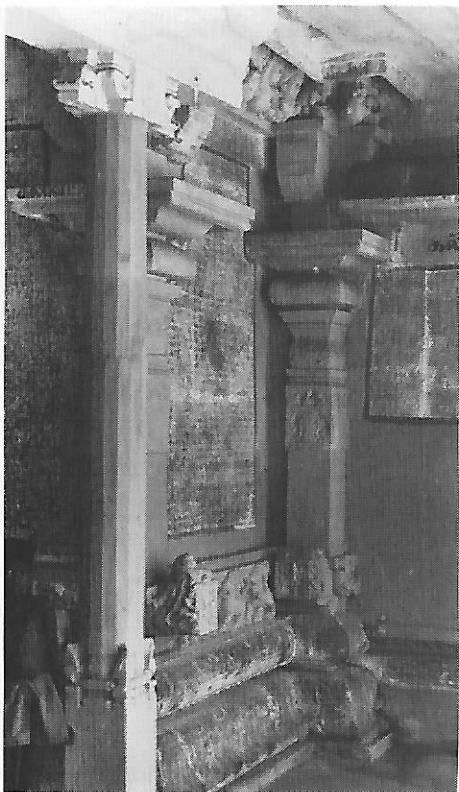


Pl. 76b Varadarāja Perumal, Tribhuvana. Detail adhiṣṭhāna.



Pl. 77 Pralayakāśvara, Pennadam.  
Central projection with window.





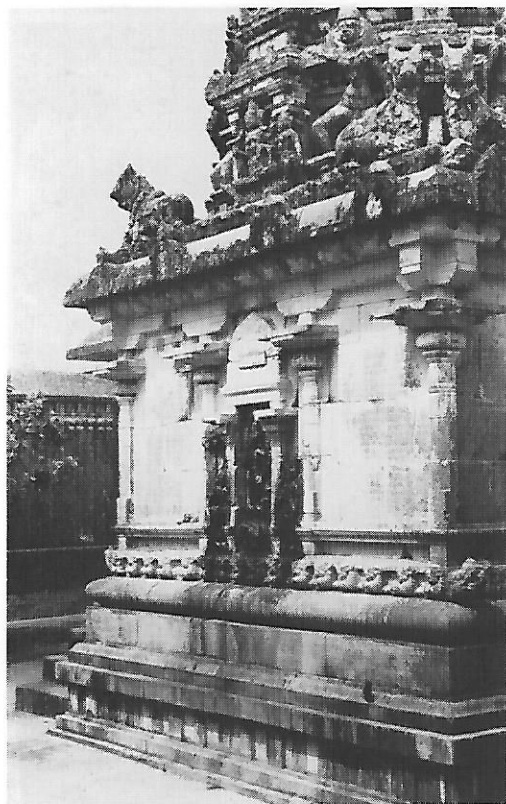
Pl. 78a Śvetāraṇyeśvara, Tiruvenkāḍū.  
Detail vimāna wall with pro-  
truding part in front of Dak-  
ṣiṇāmūrti niche added later.  
Note the neatly copied and  
framed, ancient records.



Pl. 78b Śvetāraṇyeśvara, Tiruvenkāḍū.  
Detail adhiṣṭhāna.



Pl. 79 Agnīśvara, Coḷapuram (Tj).  
General view South wall.  
Note modern extension of  
Dakṣiṇāmūrti niche, high  
upāṇa and T-shaped podigais.



Pl. 80a Agnīśvara, Tirukkoḷḷikkāḍu.  
West wall.

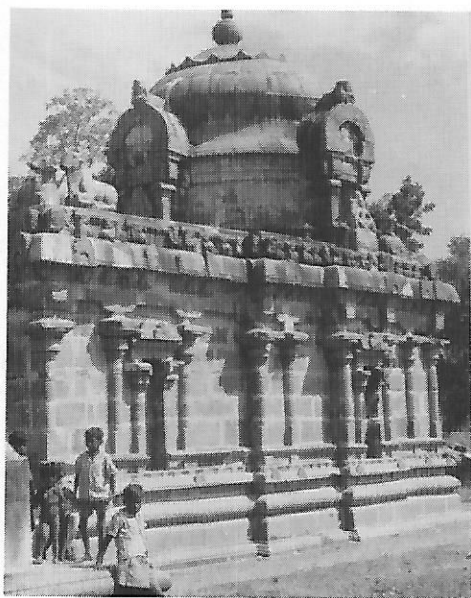


Pl. 80b Agnīśvara, Tirukkoḷḷikkāḍu.  
Detail West wall. Note oc-  
tagonal kāls.



Pl. 81 Divyajñāneśvara, Kōvilāḍi. West wall. Note oc-  
tagonal kāls and coarseness of ornamentation.





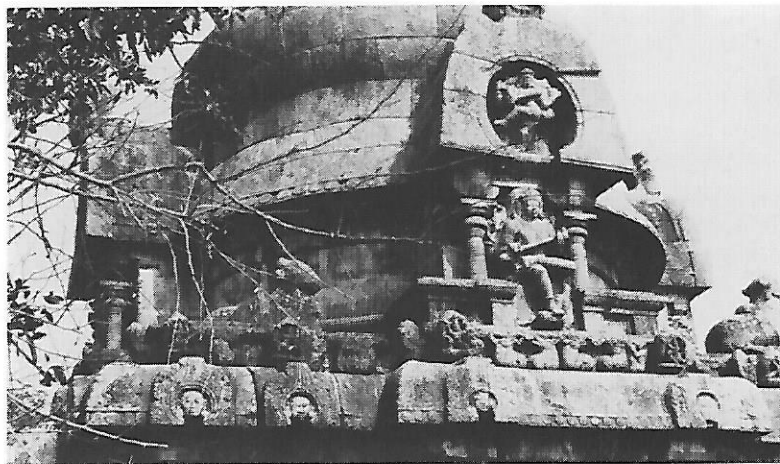
Pl.82 Tirukandīśvara, Madagadipattu. View from South-west. Note continuation of kapota above west wall ardhamaṇḍapa(L) and strangely shaped ornaments above niches.



Pl.83b Jambunātha, Jambai. Detail South wall of ardhamaṇḍapa.



Pl.83a Jambunātha, Jambai. View from South-west. Note connection ardhamaṇḍapa to mukhamaṇḍapa which is a later addition.

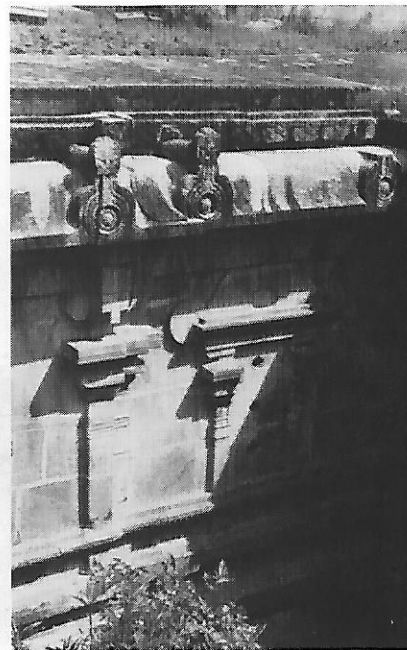


Pl.84a Rāmanātheśvara, Eśālem.Prastara and śikhara.

Pl.84b Rāmanātheśvara, Eśālem.Detail prastara, śikhara and wall.



Pl.85a Brahmeśvara, Brahmadēśam(S.A.). South wall ardhamandapa(L), antarāla(R) connecting it to a mukhamandapa which is contemporaneous with sanctum.





Pl. 86 Velladai Īsvara, Tirukkuhukavūr.  
North wall. Note square grīvā  
platform carrying a round  
śikhara.

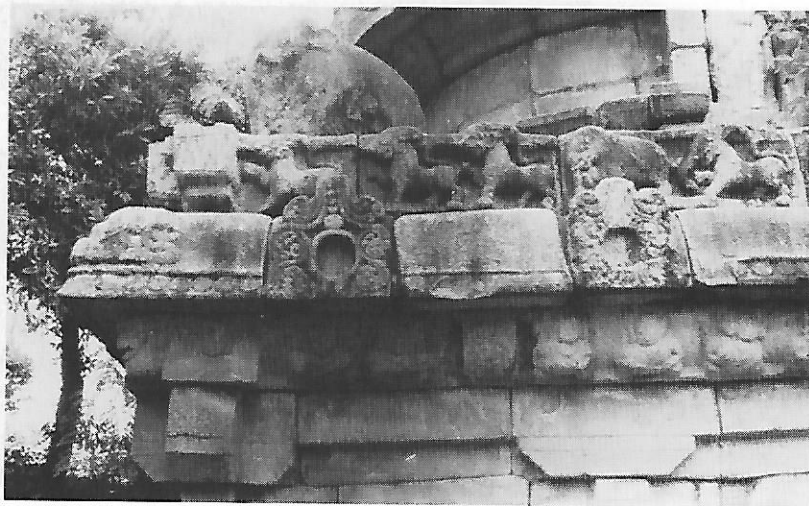


Pl. 87. Vijayālaya Coḷeśvara, Nārttāmalai.  
View from West. Note curvilinear pro-  
file of inner sanctum ( $H:W=1:1\frac{1}{2}$ ). When  
prakara wall is included the vimāna  
shows a triangular cross-section  
( $H:W=1:1$ ).



Pl. 85b Brahmeśvara, Brahmadēśam (S.A.). Detail South  
wall vimāna (L) and ardhamaṇḍapa (R). Note shape  
of kūḍus and śiṃhamukhas which are separate blocks  
(For Pl. 85a see p. 470)





Pl.88 Subrahmaṇyeśvara, Kannanūr. Detail prastara and grīvā niche(R). Note frieze of running animals without riders(cf.Pl.s.32 and 53); small vertical fascia under border of circles; raised inner circle of kūdu and adjustment of grīvā kaṇṭha to niche.



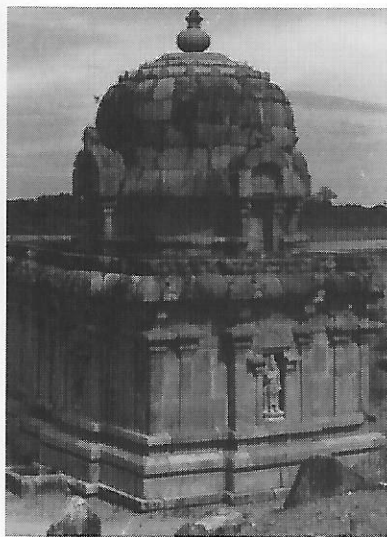
Pl.89 Śiva koyil, Tiruppūr(Tri.).North wall.Śikhara partly demolished.



Pl.90a Uttamadanīśvara, Kiranūr (Tri.).  
Detail prastara.

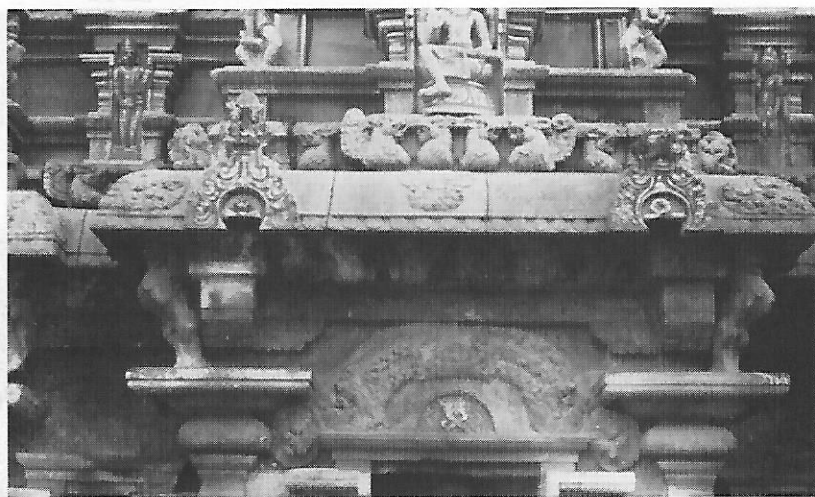


Pl.90b Uttamadanīśvara, Kiranūr (Tri.).  
Detail wall and adhiṣṭhāna of  
ardhamandapa(L) and vimāna(R).

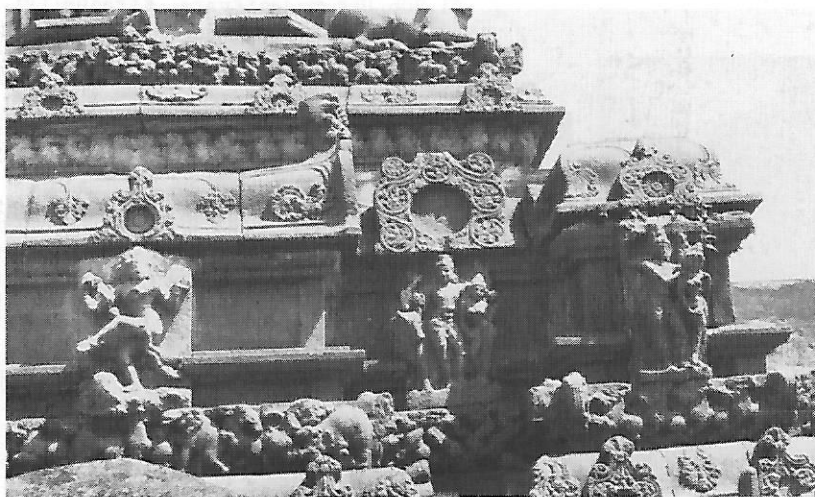


Pl.91 Bhūmīśvara, Virālūr.  
View from North-west.





Pl.92a Nāgeśvara, Kumbakonam. Detail prastara and position of vari running along hāra. Compared with the Vālīśvara at Tiruvālīśvaram(Pl.92b) it is obvious that the style of the kūdus, the kapota, the niches in the śālā and connecting walls of the Nāgeśvara is distinctly different from those shown in Pl.92b.



Pl.92b Vālīśvara, Tiruvālīśvaram. Detail prastara and position of vari running along hāra(cf. Pls. 92a and 21a-b).

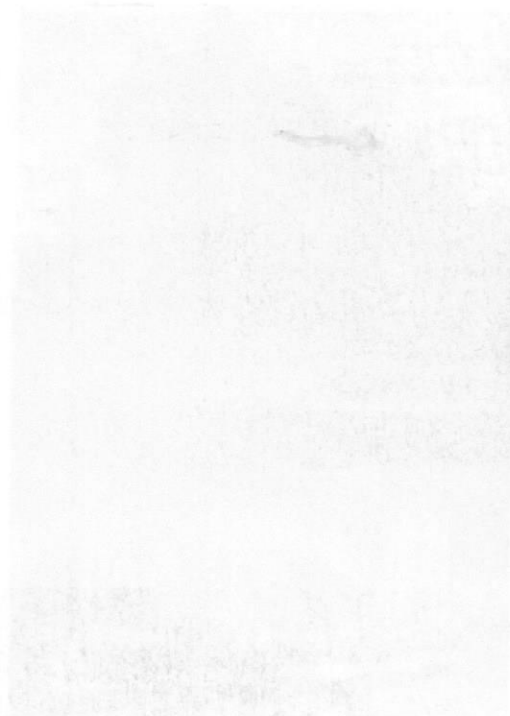
Pl.93 Mūvar Koyil, Koḍumbālūr.  
View from North-west.  
Note absence of vari on  
walls; size of śālā(cf.  
Pls.25,28 and 33a);round  
pilaster on either side  
of śālā roof(cf.Pls.23,  
24 and 26); fully devel-  
oped grīvā niche(cf.Pls.  
17,25 and 89).



Pl.94a Agnīśvara, Chittūr.  
View from South-East  
Superstructure dis-  
appeared.



Pl.94b Agnīśvara, Chittūr.  
Detail connection  
ardhamandapa(L) to  
vimāna(R):palagai of  
pilaster(L) slightly  
higher than those of  
vimāna.



Pl.95a Kailāsanātha, Alambakkam.  
View from North-west.  
Note large, wide open  
kūdus.



Pl.95b Kailāsanātha, Alambakkam.  
Detail makaratorāṇa. Note its workmanship and podigais  
under lintel.

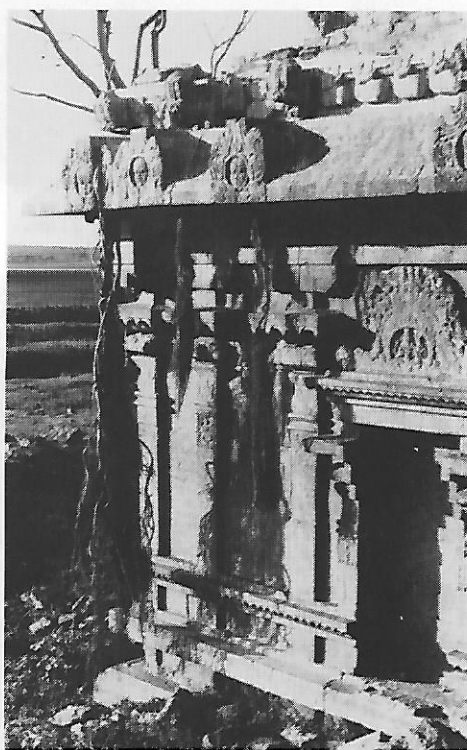




Pl.96 Śomeśvara, Śōmūr. View from South.



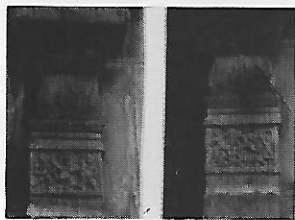
Pl.97 Agastyeśvara, Perungudi.  
West wall.



Pl.98 Śiva Koyil, Vempakkam(in  
Poinsee Reservoir and  
normally under water).South  
wall. Śikhara of brick.



Pl. 99a Colesvara, Kavantandalam.  
South wall ardhamandapa.



Pl. 99b Colesvara,  
Kavantandalam.  
Details of kals.



Pl. 100 Sokkesvara, Kancī. Partly  
collapsed South wall of  
ardhamandapa.



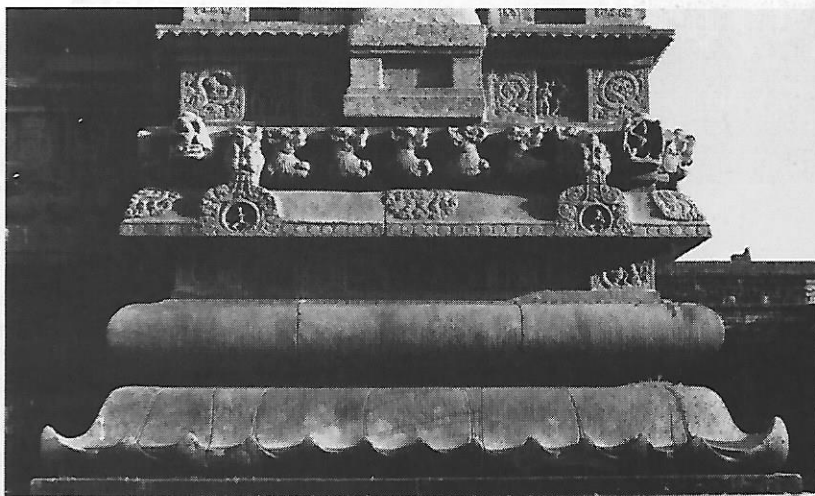
Pl. 101 Śiva koyil, Pudūr (N.A.).  
West wall





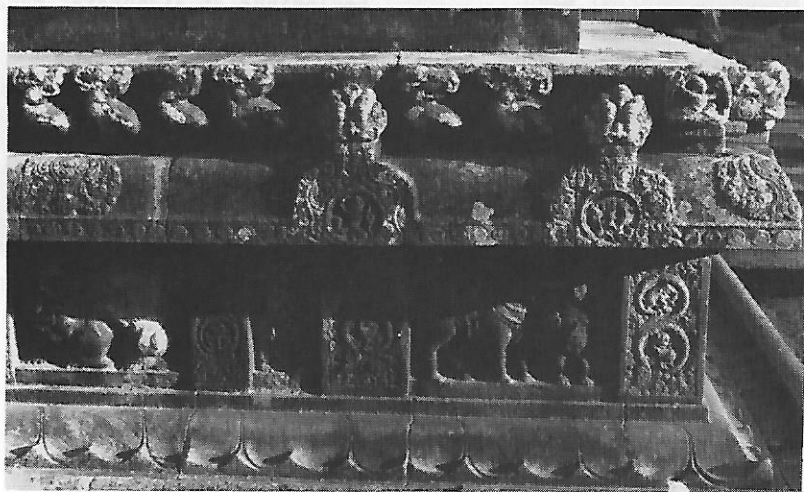
Pl. 102a Airāvateśvara, Dārāsūram. General view from West. Note kumbhapañjaras in recesses; Early Colā niches in lateral bays and Late Colā type of niche in central bay decorated with kapota and śālā; kāl contours: O, R, M and S.

Pl. 102b Airāvateśvara, Dārāsūram. Detail Late Colā niche in ardhamandapa. Note exuberance of lateral sculptures on 1st tala and hāra; beginnings of elaborate, ogeed podigai.



Pl. 102c Airāvateśvara, Dārāsūram. Detail Early Colā base (IIB2b, cf. Pl. 55b). Note continuous frieze on both kanthas.

Pl.102d Airāvateśvara, Dārāśuram. Detail first tala. Note application of archaic type of kapota and kūdu; base of kāl resembles that at Kuttālam(cf.Fig.41c,p.211) bud of lotus more developed due to introduction of tiny padmabandha.



Pl.102e Airāvateśvara, Dārāśuram. Detail upāna. Note scrolls in vertical panels, continuous frieze under old-fashioned kapota and lotus moulding as at Tiruchchātturai(cf.Pl.26).

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